

STUDY MATERIAL

ON

HOTS

Subject: Accountancy

**CLASS – XII(As per NCERT
Book)**

Part –A

**Accountancy Not – for Profit
organization and partnership
Accounts**

CHAPTER:1
ACCOUNTING FOR NOT FOR PROFIT
ORGANISATION

- Q.1 Give to main sources of income of a 'Not for profit organisation'.
- Q.2 State any two characteristics of Receipt and Payment Account.
- Q.3 How would you account for 'subscription due to be received' in the current year in the books of a non trading organisation?
- Q.4 How would you account for 'subscription received in advance' in the current year in the books of a non trading organisation?
- Q.5 What is meant by fund based accounting?
- Q.6 Tournament fund appears in the books Rs. 15,000 and expenses on tournament during the year were Rs. 18000. How will you show this in format while preparing financial statement of a not-for-profit organisation?
- Q.7 As per Receipt and Payments account for the year ended on March 31, 2008, the subscription received were Rs. 2,50,000. Addition information given is as follows:-
 (i) Subscriptions outstanding on 01-04-2007 Rs. 50,000.
 (ii) Subscription outstanding on 31-03-2008 Rs. 35,000.
 (iii) Subscription Received in advance as on 31-03-2008 Rs. 30000.

Ascertain the amount of income from subscription for the year 2007-08.

- Q.8 From the following extracts of Receipts and Payments Account and the additional information given below, compute the amount of income from subscriptions and show us how they would appear in the Income and Expenditure Account for the year ending March 31, 2007 and the Balance sheet on that date:-

Receipts and Payments A/C
For the year ending March 31, 2007

Receipts	Rs.	Payments	Rs.
Subscription :-			
2005-06	-		
7000			
2006-07	-	42000	

30000			
2007-08	-		
5000			

Additional information:-

- (i) Subscription outstanding on March 31, 2006 Rs. 8500.
- (ii) Total subscriptions outstanding on March 31, 2007 Rs. 18,500.
- (iii) Subscriptions received in advance as on March 31, 2006 Rs. 4000.

Q. 9 From the following particulars of a club, calculate the amount of salaries to be shown in Income and expenditure account for the year ended 31 March, 2008:-

Total salaries paid during the year 2007-08	Rs. 87,000
Outstanding salaries on 01-04-2007	Rs. 17,000
Prepaid salaries on 01-04-2007	Rs. 19,000
Outstanding salaries on 31-03-2008	Rs. 32,000
Prepaid salaries on 31-03-2008	Rs 20,000

Q.10 Calculate the amount to be debited to Income and Expenditure account under the heading sports items for the year 2006-07 in respect of the Osmosis club:-

Stock of sports items on 01-04-2006	Rs. 44,700
Stock of sports items on 31-03-2007	Rs. 24,500
Paid for sports items during the year	Rs. 97,900

Creditors for supplies of sports items 31-03-2007 Rs. 26,500.

Q.11 Show the following information in the Balance Sheet of the Cosmos club as on 31st March 2007:-

Particulars	Dr (Rs)	Cr (Rs)
Tournament Fund	-	1,50,000
Tournament Fund Investment	1,50,000	-
Income From Tournament Fund Investment	-	18,000
Tournament Expenses	12,000	-

Additional Information:-

Interest accrued on Tournament Fund Investment Rs. 6000.

Q.12 Calculate the amount medicines to be debited in the Income and Expenditure Account of a Hospital on the basis of the following information:-

	01-04-2006 Rs.	31-03-2007 Rs.
Stock of Medicines	90,000	1,24,000
Creditors for Medicines	2,40,000	2,04,000

Amount paid for medicines during the year was Rs. 6,79000.

Q.13 Distinguish between Receipts and Payments A/C and Income and expenditure A/C.

CHAPTER:2
ACCOUNTING FOR PARTNERSHIP FIRMS: BASIC
CONCEPTS

- Q.1 State the conditions under which capital balances may change under the system of a Fixed Capital Account.
- Q.2 A is partner in a firm. His capital as on Jan 01, 2007 was Rs. 60,000. He introduced additional capital of Rs. 20000 on Oct 01 2007. Calculate interest on A's capital @ 9% p.a.
- Q.3 Alka, Barkha and Charu are partners in a firm having no partnership agreement. Alka, Barkha and Charu contributed Rs. 20,000, Rs. 30,000 and Rs. 1,00,000 respectively. Alka and Barkha desire that the profit should be divided in the ratio of capital contribution. Charu does not agree to this. How will you settle the dispute.
- Q.4 A and B are partners in a firm without a partnership deed. A is an active partner and claims a salary of Rs. 18,000 per month. State with reason whether the claim is valid or not.
- Q.5 Chandar and Suman are partners in a firm without a partnership deed. Chandar's capital is Rs. 10,000 and Suman's capital is Rs. 14,000. Chandar has advanced a loan of Rs. 5000 and claim interest @ 12% p.a. State whether his claim is valid or not.
- Q.6 R, S, and T entered into a partnership of manufacturing and distributing educational CD's on April 01, 2006. R looked after the business development, S content development and T financed the project. At the end of the year (31-03-2007) T wanted an interest of 12% on the capital employed by him. The other partners were not inclined to this. How would you resolve this within the ambit of the Indian Partnership Act, 1932?
- Q.7 A, B and C are partners in a firm. A withdrew Rs. 1000 in the beginning of each month of the year. Calculate interest on A's drawing @ 6% p.a.
- Q.8 A, B and C are partners in a firm, B withdrew Rs. 800 at the end of each month of the year. Calculate interest on B's drawings @ 6% p.a.
- Q.9 A, B and C are partners in a firm. They have omitted interest on capital @ 10 % p.a. for three years ended 31st march 2007. Their fixed capitals on which interest was to be calculated through –out were

A	Rs. 1,00,000
B	Rs. 80,000
C	Rs. 70,000

Give the necessary Journal entry with working notes.

Q.10 X, Y, and Z are partners sharing profits and losses in the ratio of 3:2:1. After the final accounts have been prepared it was discovered that interest on drawings @ 5 % had not been taken into consideration. The drawings of the partner were X Rs. 15000, Y Rs. 12,600, Z Rs. 12,000. Give the necessary adjusting Journal entry.

Q.11 A, B and C are partners sharing profits and losses in the ratio of 3:2:1. Their fixed capitals are Rs. 1,50,000, Rs. 1,00,000 and Rs. 80,000 respectively. Profit for the year after providing interest on capital was Rs. 60,000, which was wrongly transferred to partners equally. After distribution of profit it was found that interest on capital provided to them @ 10% instead of 12% . Pass necessary adjustment entry.

Show your working clearly.

Q.12 Ravi and Mohan were partner in a firm sharing profits in the ratio of 7:5. Their respective fixed capitals were Ravi Rs. 10,00,000 and Mohan Rs. 7,00,000. The partnership deed provided for the following:-

(i) Interest on capital @ 12% p.a.

(ii) Ravi's salary Rs. 6000 per month and Mohan's salary Rs. 60000 per year.

The profit for the year ended 31-03-2007 was Rs. 5,04,000 which was distributed equally without providing for the above. Pass an adjustment Entry.

Q.13 Distinguish between fixed capital method and fluctuating capital method.

Q.14 A, B and C were partners in a firm having capitals of Rs. 60,000, Rs. 60,000 and Rs. 80,000 respectively. Their current account balances were A- Rs. 10,000, B- Rs. 5000 and C- Rs. 2000 (Dr.). According to the partnership deed the partners were entitled to an interest on capital @ 5% p.a. C being the working partner was also entitled to a salary of Rs. 6,000 p. a. The profits were to be divided as follows:

(i) The first Rs. 20,000 in proportion to their capitals.

(ii) Next Rs. 30,000 in the ratio of 5:3:2.

(iii) Remaining profits to be shared equally.

During the year the firm made a profit of Rs. 1,56,000 before charging any of the above items.

Prepare the profit and loss appropriation on A/C.

Q.15 A and B are partners sharing profits in proportion of 3:2 with capitals of Rs. 40,000 and Rs. 30,000 respectively. Interest on capital is agreed at 5 % p.a. B is to be allowed an annual salary of Rs. 3000 which has not been withdrawn. During 2001 the profits for the year prior to calculation of interest on capital but after charging B's salary amounted to Rs. 12,000. A provision of 5% of this amount is to be made in respect of commission to the manager.

Prepare profit and loss appropriation account showing the allocation of profits.

CHAPTER:3
RECONSTITUTION OF PARTNERSHIP

ADMISSION OF A PARTNER

Q.1 On what occasions does the need for valuation of goodwill arise?

Q.2 Why is it necessary to revalue assets and reassess liabilities at the time of admission of new partner?

Q.3 What is meant by sacrificing ratio?

Q.4 State two occasions when sacrificing ratio may be applied.

Q.5 A business has earned average profit of Rs. 60,000 during the last few years. The assets of the business are Rs. 5,40,000 and its external liabilities are Rs. 80,000. The normal rate of return is 10%. Calculate the value of goodwill on the basis of capitalisation of super profits.

Q.6 The capital of a firm of Arpit and Prajwal is Rs. 10,00,000. The market rate of return is 15% and the goodwill of the firm has been valued Rs. 1,80,000 at two years purchase of super profits. Find the average profits of the firm.

Q.7 The average profits for last 5 years of a firm are Rs. 20,000 and goodwill has been worked out Rs. 24,000 calculated at 3 years purchase of super profits. Calculate the amount of capital employed assuming the normal rate of interest is 8 %.

Q.8 Rahul and Sahil are partners sharing profits together in the ratio of 4:3. They admit Kamal as a new partner. Rahul surrenders $\frac{1}{4}$ th of his share and Sahil surrenders $\frac{1}{3}$ rd of his share in favour of Kamal. Calculate the new profit sharing ratio.

Q.9 Ajay and Naveen are partners sharing profits in the ratio of 5:3. Surinder is admitted in to the firm for $\frac{1}{4}$ th share in the profit which he acquires from Ajay and Naveen in the ratio of 2:1. Calculate the new profit sharing ratio.

Q.10 A and B were partners sharing profits in the ratio of 3:2. A surrenders $\frac{1}{6}$ th of his share and B surrenders $\frac{1}{4}$ th of his share in favour of C, a new partner. What is the new ratio and the sacrificing ratio.

Q.11 Aarti and Bharti are partners sharing profits in the ratio of 5:3. They admit Shital for $\frac{1}{4}$ th share and agree to share between them in the ratio of 2:1 in future. Calculate new and sacrificing ratio.

Q.12 X and Y divide profits and losses in the ratio of 3:2. Z is admitted in the firm as a new partner with $\frac{1}{6}$ th share, which he acquires from X and Y in the ratio of 1:1. Calculate the new profit sharing ratio of all partners.

Q.13 Rakhi and Parul are partners sharing profits in the ratio of 3:1. Neha is admitted as a partner. The new profit sharing ratio among Rakhi, Parul and Neha is 2:3:2. Find out the sacrificing ratio.

Q.14 X and Y are partners sharing profits in the ratio of 5:4. They admit Z in the firm for $\frac{1}{3}$ rd profit, which he takes $\frac{2}{9}$ th from X and $\frac{1}{9}$ th from Y and brings Rs. 1500 as premium. Pass the necessary Journal entries on Z's admission.

Q.15 Ranzeet and Priya are two partners sharing profits in the ratio of 3:2. They admit Nilu as a partner, who pays Rs. 60,000 as capital. The new ratio is fixed as 3:1:1. The value of goodwill of the firm was determined at Rs. 50,000. Show journal entries if Nilu brings goodwill for her share in cash.

Q.16 A and B are partners sharing profits equally. They admit C into partnership, C paying only Rs. 1000 for premium out of his share of premium of Rs. 1800 for $\frac{1}{4}$ th share of profit. Goodwill account appears in the books at Rs. 6000. All the partners have decided that goodwill should not appear in the new firms books.

Q.17 A and B are partners sharing profits in the ratio of 3:2. Their books showed goodwill at Rs. 2000. C is admitted with $\frac{1}{4}$ th share of profits and brings Rs. 10,000 as his capital but is not able to bring in cash goodwill Rs. 3000. Give necessary Journal entries.

Q.18 Piyush and Deepika are partners sharing in the ratio of 7:3. they admit Seema as a new partner. The new ratio being 5:3:2. Pass journal entries.

Q.19 A and B are partners with capital of Rs. 26,000 and Rs. 22,000 respectively. They admit C as partner with $\frac{1}{4}$ th share in the profits of the firm. C brings Rs. 26,000 as his share of capital. Give journal entry to record goodwill on C's admission.

Q.20 A and B are partners sharing profits in the ratio of 3:2. They admit C into partnership for 1/4th share. C is unable to bring his share of goodwill in cash. The goodwill of the firm is valued at Rs. 21,000. Give journal entry for the treatment of goodwill on C's admission.

Q.21 A and B are partners with capitals of Rs. 13,000 and Rs. 9,000 respectively. They admit C as a partner with 1/5th share in the profits of the firm. C brings Rs. 8,000 as his capital. Give journal entries to record goodwill.

Q.22 A, B and C were partners in the ratio of 5:4:1. On 31st Dec. 2006 their balance sheet showed a reserve fund of Rs. 65,000, P&L A/C (Loss) of Rs. 45,000. On 1st January, 2007, the partners decided to change their profit sharing ratio to 9:6:5. For this purpose goodwill was valued at Rs. 1,50,000.

The partners do not want to distribute reserves and losses and also do not want to record goodwill.

You are required to pass single journal entry for the above.

Q.23 A and B were partners in the ratio of 3:2. They admit C for 3/13th share. New profit ratio after C's admission will be 5:5:3. C brought some assets in the form of his capital and for the share of his goodwill.

Following were the assets:

Assets	Rs.
Stock	2,44,000
Building	2,40,000
Plant and Machinery	1,40,000

At the time of admission of C goodwill of the firm was valued at Rs. 12,48,000.

Pass necessary journal entries.

Q.24 X, Y and Z are sharing profits and losses in the ratio of 5:3:2. They decide to share future profits and losses in the ratio of 2:3:5 with effect from 1st April, 2002. They also decide to record the effect of the reserves without affecting their book figures, by passing a single adjusting entry.

	Book Figure
General Reserve	Rs. 40,000
Profit & loss A/C (Cr)	Rs. 10,000
Advertisement Suspense A/C(Dr)	Rs. 20,000

Pass the necessary single adjusting entry.

CHAPTER:4

RECONSTITUTION OF A PARTNERSHIP FIRM

RETIREMENT /DEATH OF A PARTNER

Q.1 Distinguish between Sacrificing Ratio and Gaining Ratio.

- Q.2 Kamal, Kishore and Kunal are partners in a firm sharing profits equally. Kishore retires from the firm. Kamal and Kunal decide to share the profits in future in the ratio 4:3. Calculate the Gaining Ratio.
- Q.3 P, Q and R are partners sharing profits in the ratio of 7:2:1. P retires and the new profit sharing ratio between Q and R is 2:1. State the Gaining Ratio.
- Q.4 A, B and C are partners in a firm sharing profits in the ratio of 2:2:1. B retires and his share is acquired by A and C equally. Calculate new profit sharing ratio of A and C.
- Q.5 X, Y and Z are partners sharing profits in the ratio of $\frac{4}{9}$, $\frac{1}{3}$ and $\frac{2}{9}$. X retires and surrenders $\frac{2}{3}$ rd of his share in favour of Y and remaining in favour of Z. Calculate new profit sharing ratio and gaining ratio.
- Q.6 X, Y and Z have been sharing profits and losses in the ratio of 3:2:1. Z retires. His share is taken over by X and Y in the ratio of 2:1. Calculate the new profit sharing ratio.
- Q.7 P, Q and R were partners in a firm sharing profits in 4:5:6 ratio. On 28-02-2008 Q retired and his share of profits was taken over by P and R in 1:2 ratio. Calculate the new profit sharing ratio of P and R.
- Q.8 Mayank, Harshit and Rohit were partners in a firm sharing profits in the ratio of 5:3:2. Harshit retired and goodwill is valued at Rs 60000. Mayank and Rohit decided to share future profits in the ratio 2:3. Pass necessary journal entry for treatment of goodwill.
- Q.9 Ramesh, Naresh and Suresh were partners in a firm sharing profits in the ratio of 5:3:2. Naresh retired and the new profit sharing ratio between Ramesh and Suresh was 2:3. On Naresh retirement the goodwill of the firm was valued at Rs. 120000. Pass necessary journal entry for the treatment.
- Q.10 L, M and O were partners in a firm sharing profits in the ratio of 1:3:2. L retired and the new profit sharing ratio between M and O was 1:2. On L's retirement the goodwill of the firm was valued Rs. 120000. Pass necessary journal entry for the treatment of goodwill.
- Q.11 State the journal entry for treatment of deceased partners share of profit for his life period in the year of death.
- Q.12 X, Y and Z were partners in a firm sharing profits and losses in the ratio of 3:2:1. The profit of the firm for the year ended 31st March, 2007 was Rs. 3,00,000. Y dies on 1st July 2007. Calculate Y's share of profit up to date of death assuming that profits in the year 2007- 2008 have been accrued on the same scale as in the year 2006-07 and pass necessary journal entry.
- Q.13 A, B and C were partners in a firm sharing profits in 3:2:1 ratio. The firm closes its books on 31st March every year. B died on 12-06-2007. On B's death the goodwill of the firm was valued at Rs. 60,000. On B's death his share in the profit of the firm till the time of his death was to be calculated on the basis of previous years which was Rs.1,50,000. Calculate B's share in the profit of the firm. Pass necessary journal entries for the treatment of goodwill and B's share of profit at the time of his death.

Q.14 A, B and C were partners in a firm sharing profits in the ratio of 2:2:1. C dies on 31st July, 2007. Sales during the previous year upto 31st March, 2007 were Rs. 6,00,000 and profits were Rs. 150,000. Sales for the current year upto 31st July were Rs. 2,50,000. Calculate C's share of profits upto the date of his death and pass necessary journal entry.

CHAPTER:5

DISSOLUTION OF PARTNERSHIP FIRM

Q.1 Distinguish between dissolution of partnership and dissolution of partnership firm on the basis of continuation of business.

Q.2 Why is Realisation Account prepared on dissolution of partnership firm?

Q.3 State any one point of difference between Realisation Account and Revaluation Account.

Q.4 All partners wish to dissolve the firm. Yastin, a partner wants that her loan of Rs. 2,00,000 must be paid off before the payment of capitals to the partners. But, Amart, another partner wants that the capital must be paid before the payment of Yastin's loan. You are required to settle the conflict giving reasons.

Q.5 On a firm's dissolution debtors as shown in the Balance sheet were Rs. 17,000 out of these Rs. 2,000 became bad. One debtor of Rs. 6,000 became insolvent and 40% could be recovered from him. Full recovery was made from the balance debtors. Calculate the amount received from debtors and pass necessary journal entry.

Q.6 On dissolution of a firm, Kamal's capital account shows a debit balance of Rs. 16,000. His share of profit on realization is Rs. 11,000. He has taken over firm's creditors at Rs. 9,000. Calculate the final payment due to /from him and pass journal entry.

Q.7 A and B were partners in a firm sharing profits and losses equally. Their firm was dissolved on 15th March, 2004, which resulted in a loss of Rs. 30,000. On that date the capital A/C of A showed a credit balance of Rs. 20,000 and that of B a credit balance of Rs. 30,000. The cash account has a balance of Rs. 20,000. You are required to pass the necessary journal entries for the (i) Transfer of loss to the capital accounts and (ii) making final payment to the partners.

Q.8 What journal entries would be passed in the books of A and B who are partners in a firm, sharing profits in the ratio of 5:2, for the following transactions on the dissolution of the firm after various assets (other than cash) and third party liabilities have been transferred to Realisation Account?

- (a) Bank loan Rs. 12,000 is paid.
- (b) Stock worth Rs. 6,000 is taken over by B.
- (c) Loss on Realisation Rs. 14,000.
- (d) Realisation expenses amounted to Rs. 2,000, B has to bear these expenses.
- (e) Deferred Revenue Advertising Expenditure appeared at Rs. 28,000.

- (f) A typewriter completely written off in the books of the firm was sold for Rs. 200.

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Subject: Accountancy

**CLASS – XII(As per NCERT
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Part –B

Accountancy Company Accounts and Analysis of Financial Statements

CHAPTER:1 & 2 ACCOUNTING FOR SHARE CAPITAL & DEBENTURE

THEORETICAL QUESTIONS

Q.1 Gupta Ltd has incurred a loss of Rs. 8,00,000 before payment of interest on debentures. The directors of the company are of the opinion that interest on debentures is payable only when company earn profit. Do you agree?

Q.2 As per latest guidelines governing the servicing of debentures a company is required to create on special account. Name that account.

Q.3 Name the method of redemption of debentures in which there is no requirement of creating Debenture Redemption Reserve.

Q.4 What is the nature of receipt of premium on issue of shares?

Q.5 Can a company issue shares at a premium in the absence of any express authority in its articles?

Q.6 What is the maximum rate of interest which the board of directors of a company can normally pay on calls-in-advance if the articles are silent on the matter of such interest?

Q.7 State with reason whether a company can issue its shares at a discount in its Initial Public Offer (IPO).

Q.8 Why securities premium money can not be used for payment of cash dividend among shareholders?

Q.9 Krishna Ltd. With paid-up share capital of Rs. 60,00,000 has a balance of Rs. 15,00,000 in securities premium account. The company management does not want to carry over this balance. You are required to suggest the method for utilizing this premium money that would achieve the objectives of the management and maximize the return to shareholders.

Q.10 Distinguish between a share and a Debenture.

Q.11 Can share premium be utilised for the purchase of fixed assets?

Q.12 State in brief, the SEBI guidelines regarding Debenture Redemption Reserve(DRR).

Q.13 Which companies are exempted from the obligation of creating DRR by SEBI?

Q.14 What is the restriction on reissue of forfeited shares at discount?

PRACTICAL QUESTIONS

Q.1 X Ltd. issued 20,000 shares of Rs. 10 each at a premium of 10% payable as follows:-

On application Rs. 2 (1st Jan 2001), on allotment Rs. 4 (including premium) (1st April 2001), On first call Rs. 3 (1st June 2001), on second call & final call Rs. 2 (1st Aug. 2001).

Application were received for 18,000 shares and the directors made allotment in full. One shareholder to whom 40 shares were allotted paid the entire balance on his share holdings with allotment money and another shareholder did not pay allotment and 1st call money on his 60 shares but which he paid with final call.

Calculate the amount of interest paid and received on calls-in-advance and calls-in-arrears respectively on 1st Aug. 2001.

Q.2 X Ltd took over the assets of Rs. 6,60,000 and liabilities of Rs. 80,000, Y Ltd for Rs. 600,000. Show the necessary journal entries in the book of X Ltd. assuming that

Case-I : The consideration was payable 10% in cash and the balance in 54000 equity shares of Rs. 10 each.

Case-II : The consideration was payable 10% in cash and the balance in 45000 equity shares of Rs. 10 each.

Case-III : The consideration was payable 10% in cash and the balance in 60,000 equity shares of Rs. 10 each.

Q.3 X Ltd. was formed with a capital of Rs. 500,000 divided into shares of Rs. 10 each out of these 2000 shares were issued to the vendors as fully paid as purchase consideration for a building acquired, 1000 shares were issued to signatories to the memorandum of association as fully paid. The directors offered 6500 shares to the public and called up Rs. 6 per and received the entry called up amount on share allotted. Show these transaction in the Balance sheet of a company.

Q.4 X Ltd. invited applications for 11,000 shares of Rs. 10 each issued at 10% premium payable as:

On application	Rs. 3 (including Rs. 1 premium)
On allotment	Rs. 4 (including Rs. 1 premium)
On 1 st Call	Rs. 3
On 2 nd & final call	Rs. 2

Application were received for 24000 shares.

Category I : One fourth of the shares applied for allotted 2000 shares.

Category II: Three fourth the shares applied for allotted 9000 shares.

Remaining applicants were rejected. Mr. Mohan holding 300 shares out of category II failed to pay allotment and two calls and his shares were re issued @ Rs. 11 fully paid-up. Pass necessary journal entries.

Q.5 A company forfeited 240 shares of Rs. 10 each issued to raj at a a premium of 20%. Raman had applied for 300 shares and had not paid anything after paying Rs 6 per share including premium on application. 180 shares were reissued at Rs. 11 per share fully paid up. Pass journal entries relating to forfeiture and reissue of shares.

Q.6 On 1st July 2007. A Ltd gave notice of their intention to redeem their outstanding Rs. 400,000 8% Debentures on 1st January, 2008 @ rs. 102 each and offered the holders the following options-

- To subscribe for (i) 6% cumulative preference shares of Rs. 20 each at Rs. 22.50 per share, accepted by debenture holders of Rs. 1,71,000 or (ii) 12% debentures were issued @96% accepted by the holders of Rs. 1,44,000 Debentures.
- Remaining debentures to be redeemed for cash if neither of the option under (a) was accepted. Pass necessary journal entries.

Q. 7 Sonu Ltd. company issued 15,000 shares of Rs. 10 each. Payment on there shares is to be made as follows:

On application	Rs. 4 (1 st Feb, 2003)
On allotment	Rs. 3 (1 st April, 2003)
On final call	Rs. 3 (1 st May, 2003)

Rakesh to whom 1000 shares were allotted paid the full amount on application and mohan to whom 200 shares were allotted paid the final call money on allotment. Interest @ 6% was paid on 1st May, 2003. Pass necessary journal entries.

Q.8 TPT Ltd. invited applications for issuing 1,00,000 equity shares of Rs. 10 each at a premium of Rs. 3 per share. The whole amount was payable on application. The issue was over subscribed by 30,000 shares and allotment was made on pro-rata basis. Pass necessary journal entries in the books of the company.

Q.9 Virani Industries Ltd. issued 1,00,000, 10% Debentures of Rs. 10 each at a discount of 9% on April 1st, 2001 redeemable as follows:

31st March 2003 - 20,000 Debentures

31st March 2004 - 30,000 Debentures
31st March 2005 - 20,000 Debentures
31st March 2006 - Remaining Debentures

Calculate the amount of discount to be written off each year and prepare discount on issue of debentures account.

Q.10 The following balance appeared in the books of Z Ltd. on January 1, 2004.

12% Debentures A/C	Rs. 1,50,000
Debenture Redemption Fund	Rs. 1,25,000
Debenture Redemption Fund Investment	Rs. 1,25,000

(Represented by Rs. 1,47,500, 3% Govt. Securities)

The annual installment added to the fund is Rs. 20,575. On December 31, 2004, the bank balance after the receipt of interest on investment was Rs. 39,100. On that date all the investment were sold at 83% and the debentures were duly redeemed. Show the necessary ledger accounts for the year 2004.

Q.11 On 01-04-1999, A Ltd., issued 2000, 7% debentures of Rs. 100 each at a discount of 10% redeemable at par after 4 years by converting them into equity shares of Rs. 100 each issued at a premium of 25%.

Pass journal entries in the following cases:

- (i) If debentures are redeemed on maturity.
- (ii) If debentures are redeemed before maturity.

Q.12 Pass journal entries for the following at the time of issue of debentures:

- (a) B Ltd. issues 30,000, 12% Debentures of Rs. 100 each at a discount of 5 % to be repaid at par at the end of 5 years.
- (b) E Ltd. issues Rs. 60,000, 12% Debentures of Rs. 100 each at a discount of 5 % repayable at a premium of 10% at the end of 5 years.
- (c) F Ltd. issues Rs. 70,000, 12% Debentures of Rs. 100 each at a premium of 5 % redeemable at 110%.

Q.13 500 shares of Rs. 100 each issued at a discount of 10% were forfeited for the non-payment of allotment money of Rs. 50 per share. The first and final call of Rs.10 per share on these shares were not made. The forfeited shares were reissued at Rs. 80 per share fully paid-up.

Q.14 200 shares of Rs. 100 each issued at a discount of 10% were forfeited for the non payment of allotment money of Rs. 50 per share. The first and final call of Rs. 10 per share on these shares were not made. The forfeited share were reissued at Rs. 14 per share fully paid up.

Q.15 800 Shares of Rs. 10 each issued at per were forfeited for the non-payment of final call of Rs. 2 per share. These shares were reissued at Rs. 8 per share fully paid-up.

Chapter 3 & 4

Analysis of Financial Statements

- Qus:1 How will you show the following items in the Balance sheet of a company.
(i) Calls in Arrears (ii) Calls in Advance.
- Qus:2 Under what heads the following items on the Liabilities side of the Balance sheet Of a company will be presented
(i) Proposed Dividend.
(ii) Unclaimed Dividend.
- Qus:3 State any two items which are shown under the head 'Investment' in a company balance sheet.
- Qus:4 Give the format of the Balance sheet of a company(main headings only) as per the requirement of Schedule VI of the companies Act.1956.
- Qus:5 Give the heading under which the following items will be shown in a company's Balance sheet:
(i) Goodwill.
(ii) Preliminary Expenses
(iii) Loose Tools
(iv) Capital Redemption Resave.
(v) Live Stock.
- Qus:6 The following balance have been from the book of Sahara Ltd. Share capital Rs.10,00,000, securities Premium Rs. 1,00,000, 9% Debentures Rs. 500,000, Creditors Rs. 200,000., Proposed Dividend Rs. 50,000. , Freehold property RS. 9,00,000, share of Reliance Industries Rs. 4,00,000, Work-in-Progress Rs. 4,00,000, Discount on Issue of Debentures Rs. 1,00,000.
Prepare the balance sheet of the company as per schedule VI part 1 of the companies Act.1956.
- Qus:7 List any three items that can be shown as contingent Liabilities in a company's Balance sheet.
- Qus:8 Give two example each of Non-Current Assets and Non- Current Liabilities.
- Qus:9 What is Horizontal Analysis?
- Qus:10 Give the example of Horizontal Analysis.
- Qus:11. What is Vertical Analysis?
- Qus:12. Give the example of Vertical Analysis?
- Qus:13. How is a Company's balance sheet different from that of a Partnership firm?
Give Two point only.
- Qus:14. List any two information required to be given in the balance sheet of a company or by way of foot Notes.
- Qus:15. State whether the Balance sheet of a Company is prepared ' as on a particular date ' or ' as at a Particular date ' ?
- Qus:16. Which part of Schedule VI to the Companies Act.1956 prescribes the forms of the balance sheet ?

Qus:17. How is analysis of Financial statements suffered from the limitation of window dressing ?

Qus:18. What is the interest of Shareholders in the analysis of Financial statements?

Qus:19. Name two tools of Financial Analysis ?

Qus:20: Which item is assumed to be 100 in the case of common size Income statement .

Qus:21 Prepare Comparative income statement from the following information for the years ended march
31,2003 and 2004.

Particulars	2003(Rs.)	2004(Rs.)
1.Net Sales	8,00,000	10,00,000
2.Cost of Goods Sold	60% of sales	60% of sales
3.Indirect Expenses	10% of Gross profit	10% of Gross Profit
4.Income Tax rate	50%	60%

Chapter - 5 Ratio Analysis

Qus:1 How will you asses the liquidity or short term financial position of a business ?

Qus:2 Current ratio of Reliance Textiles Ltd. Is 1.5 at present. In future it want to improve this ratio to 2.

Suggest any two accounting transaction for improving the current ratio.

Qus:3 State one transaction which results in an increase in ‘ liquid ratio ‘and nochange in ‘current ratio’.

Qus:4 Why stock is excluded from liquid assets ?

Qus:5 Quick ratio of a company is 1.5 :1 . state giving reason whether the ratio will improve , decline or

Not change on payment of dividend by the company.

Qus:6 State one transaction which result in a decrease in ‘ debt-equity ratio ‘ and no change in ‘ current
Ratio ‘.

Qus:7 How does ratio analysis becomes less effective when the price level changes?

Qus:8. Indicate which ratio a shareholders would use who is examining his portfolio and wants to decide

Whether he should hold or sell his shareholdings?

Qus:9 Indicate which ratio would be used by a Long-Term creditor who is interested in determining whether his claim is adequately secured ?

Qus:10 What will be the Operating profit, If operating Ratio is 78% ?

Qus:11 The Debtors turnover Ratio of a company is 6 times. State with reasons whether the ratio will Improve , decrease, or not change due to increases in the value of closing stock by Rs. 50,000?

Qus:12 What will be the impact of ‘ Issue of shares against the purchase of fixed assets ‘ on a debt Equity ratio of 1:1 ?

Qus:13 State one transaction involving a decrease in Liquid ratio and no change in current ratio.

Qus:14 Assuming that the Debt Equity Ratio is 2:1. State giving reason , whether the ratio will improve , decline or will have no change in case bonus shares allotted to equity shareholders by Capitalizing profits.

Qus:15 The ratio of current Assets (Rs. 9,00,000) to current liabilities is 1.5:1. The accountant of this Firm is interested in maintaining a current ratio of 2:1 by paying some part of current liabilities You are required to suggest him the amount of current liabilities which must be paid for the Purpose.

Qus:16 A company has a loan of Rs.15,00,000 as part of its capital employed. The interest payable on Loan is 15% and the ROI of the company is 25%. The rate of income tax is 60%.what is the Gain to shareholders due to the loan raised by the company ?

Qus:17 Rs.2,00,000 is the cost of goods sold, inventory turnover 8 times, stock at the beginning is 1.5 Times more than the stock at the end. Calculate the value of opening & closing stock .

Qus:18 From the given information, calculate the stock turnover ratio: sales Rs.5,00,000, Gross Profit 25% on cost , opening stock was $\frac{1}{3}$ rd of the value of closing stock. Closing stock was 30% Of sales.

Qus:19 Calculate cost of goods sold from the following information: Sales Rs.12,00,000, Sales Returns Rs.80,000, operating expenses Rs.1,82,000, operating ratio 92%.

Qus:20 Calculate the amount of opening stock and closing stock from the following figures:
Average Debt collection period 4 month stock turnover ratio 3 times.
Average Debtors Rs.1,00,000 Cash sales being 25% of total sales Gross profit ratio 25%
stock at the end was 3
Times that in the beginning.

Qus:21 (a) Calculate return on Investment from the following information :

Net profit after Tax Rs.6,50,000.
12.5% convertible debentures Rs 8,00,000.
Income Tax 50%.
Fixed Assets at cost Rs.24,60,000.
Depreciation reserve Rs.4,60,000.
Current Assets Rs. 15,00,000.
Current Liabilities Rs. 7,00,000.

(b) Profit before interest and tax(PBIT) Rs.2,00,000, 10% preference shares of Rs.100 each.
Rs.2,00,000, 2,000 equity shares of Rs. 10 each, Rate of tax @ 50%
calculate earning per
Share(EPS).

Chapter 6

Cash Flow Statement

Qus:1 Why is the cash flow statement not a suitable judge of profitability ?

Qus:2 Under which accounting standard , cash flow statement is prepared ?

Qus:3 Why do we add back depreciation to net profit while calculating cash flow from operating activities.

Qus:4 How will you classify loans given by Birla Finance Ltd.? While preparing cash flow statement.

Qus:5 How will you classify deposits by customers in HDFC Bank while preparing cash flow statement.

Qus:6 Where will you show purchase of computer in cash flow statement ?

Qus:7 Give two examples of ‘ Significant non cash transactions ‘.

Qus:8 How will you classify loans given by Tata Manufacturing Company.

Qus:9 A company receives a dividend of Rs. 2 Lakhs on its investment in other company’s share will it be

Cash inflow from operating or investing activities in case of a.

- (i) Finance Company.
- (ii) Non-Finance Company.

Qus:10 How are various activities classified as per AS-3 (Revised) ?

Qus:11 Cash flow from operating Activities + Cash flow from Investing Activities + Cash flow from Financing

Activities =.....

Qus:12 What are the two methods which can be employed to calculate net cash flow from operating activities ?

Qus:13 Escorts Ltd. Engaged in the business of manufacturing tractors invested Rs.40,00,000 in the shares of a

Car manufacturing Company. state with reason whether the dividend received on this investment will

Be cash flow from operating activities or Investing activities.

Qus:14 Modern Toys Ltd. Purchased a machinery of Rs.20,00,000 for manufacturing toys. State giving reason

Whether the cash flow due to the purchase of machinery will be cash flow from operating activities,

Investing activities or Financing activities ?

Qus:15 From the following profit or loss account find out the flow of cash from operating activities of

Mohan Ltd.

Dr. PROFIT AND LOSS ACCOUNT
Cr.

Particulars		Amount	Particulars	
		(Rs)		
To Rent Paid	14,000		By Gross Profit	
Less: Prepaid	<u>2,000</u>	12,000	By Profit on Sale of Machine	
To Salaries		25,000	By Tax Refund	
To Depreciation		15,000	By Rent received	4,000
To Loss on sale of Furniture		10,000	Add: Rent accrued	<u>1,000</u>
To Goodwill written Off		8,000		
To Bad Debts		3,000		
To Office Expenses		18,000		
To Discount allowed		7,000		
To Proposed Dividend		30,000		
To Provision for Tax		22,000		
To Net Profit		52,800		
		<u>2,02,800</u>		

Note: There was increase in Closing stock by Rs. 25,000.

Qus:16 Prepare Cash flow Statement from the following information of Box Ltd. For the year ended March 31,2004.

BALANCE SHEETS OF LION LTD. AS ON MARCH 31,2004

Liabilities	2003	2004	Assets	2003	2004
	(Rs)	(Rs)		(Rs)	(Rs)
Share capital	3,00,000	4,00,000	Goodwill	70,000	30,000
Profit & Loss	1,20,000	2,60,000	Machinery	3,00,000	3,20,000
Account	60,000	95,000	12% Investments	1,50,000	3,00,000
General Reserve	70,000	80,000	Stock	35,000	1,85,000

Tax Provision	50,000	90,000	Debtors	50,000	70,000
Creditors	30,000	10,000	Cash at Bank	30,000	40,000
Bill Payables	25,000	40,000	Short term	20,000	30,000
Depreciation			Investment		
Provision	6,55,000	9,75,000		6,55,000	9,75,000

Additional Information :

1. Investment costing Rs.50,000 were sold for Rs. 48,000 during the year.
2. Tax paid during the year Rs.70,000.
3. Interest received on Investment Rs. 12,000.

SUGGESTED ANSWERS

ON

HOTS

Subject: Accountancy

CLASS – XII(As per NCERT

Book)

Part –A

Accountancy Not – for Profit organization and partnership Accounts

CHAPTER:1 **NOT FOR PROFIT ORGANISATION**

Q. 1 (i) Subscription (ii) Donation.

Q.2 (i) Receipts and Payments Account is a summary of Cash Book.

(ii) Non- cash expenses such as depreciation and outstanding expenses are not shown in Receipts and Payments Account.

Q.3 Subscription due to be received is added with subscription received during the year in Income and Expenditure A/C and shown as an asset in the closing balance sheet.

Q.4 Subscription received in advance is subtracted from subscription received during the year in Income and Expenditure A/C and shown as a liability in the closing Balance sheet.

Q.5 Fund based accounting is a book peeping technique where by separate self-balancing sets of assets, liability, income, expenses and fund balance accounts are maintained for each contribution for a specific purpose.

Q.6

Income and Expenditure A/C
For the year ended

Expenditure	Rs.	Income	Rs.
To Tournament Expenses 18000			
Less Tournament Fund 15000	3000		

Q. 7 Calculation of current year subscription to be shown in Income and Expenditure A/C for the year ended March 31, 2008 :-

Total subscription received during the year 250000

Add:-

Outstanding subscription on 31-03-2008	35000	
Advance subscription on 01-04-2007	<u>NIL</u>	35000
		285000

Less :-

Outstanding subscription on 01-04-07	50000	
<u>Advance subscription on 31-03-2008</u>	<u>30000</u>	(80000)
Current year subscription		205000

Q. 8

**Income and Expenditure A/C
For the year ending March 31, 2007**

Expenditure	Rs.	Income	Rs.
		By Subscription 30000	
		Add:- outstanding subscription for 2006 -07 (18500-1500)	51000
		17000	
		Add:- Advance in 2005-06	
		4000	

**Balance sheet
As on 31st March 2007**

Liabilities	Amount	Assets	Amount
Subscription in advance	5000	Subscription outstanding 2005-06 1500	18500
		2006-07 17000	

Q. 9 Calculation of salaries to be shown in Income and Expenditure A/C for the year ended March 31, 2008:-

Total Salaries paid during the year	Rs. 87,000
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Add:-

Outstanding salaries on 31-03-2008	32,000
------------------------------------	--------

Prepaid salaries on 01-04-2007	19,000	51,000
		<u>138,000</u>

Less:-

Outstanding Salaries on 01-04-2007	17,000	
Prepaid salaries on 31-03-2008	2,000	(37,000)
Salaries to be shown in Income and Expenditure A/C		<u>101000</u>

Q. 10

Amount paid for sports items during the year		97900
Add:-		
Stock of sports items as on 01-04-2006	44700	
Creditors for sports as on 31-03-2007	26500	71200
		<u>169100</u>

Less :-

Stock of sports items as on 31-03-2007		24500
Sports items to be debited in the Income and expenditure A/C		<u>144600</u>

Q.11

**Balance sheet of Cosmos Ltd.
As on 31st March, 2007**

Liabilities	Amount	Assets	Amount
Tournament Fund 1,50000		Tournament Fund investment.	1,50000
Add		Accured interest on Tournament fund Investment	6000
Income from Tournament Fund Investment 18,000			
<u>Accured interest on tournament fund Investment 6000</u>			
1,74,000	162000		
Less Tournament Expenses 12,000			

Q. 12 Amount paid for medicine during the year 6,79000

Add:-

Stock of medicine on 01-04-2006	90,000	
Creditors for medicine on 31-03-2007	204,000	294,000
		<u>9,73,000</u>

Less:-

Stock of medicine on 31-03-2007	124,000	
Creditors for medicine as on 01-04-2006	240,000	364,000
		<u>364,000</u>

Medicine to be debited in in Income and Expenditure A/C. 609000

Q. 13 Difference between Receipts and Payments and Income and Expenditure.

Basis	Income and Expenditure	Receipts and Payments
(i) Nature	It is a kin to profit and loss A/C	It is the summary of Cash book.
(ii) Nature of Items	It records income and expenditure of revenue nature only	It records receipts and payments of both capital and revenue nature.
(iii) Result	The result of Income and expenditure A/C is surplus or deficit.	The result of Receipt and Payments is closing balance of cash and Bank.

CHAPTER:2

ACCOUNTING FOR PARTNERSHIP FIRMS: BASIC CONCEPTS

Ans. 1 (i) When additional capital is introduced.
(ii) When capital is withdrawn.

Ans. 2 60000 X 9/100 = 5400

$$\frac{20000 \times 9/100 \times 3/12}{\text{Total Interest}} = \frac{450}{5850}$$

Ans. 3 Charu is correct as in the absence of partnership agreement, profits and losses are divided equally among partners.

Ans. 4 A's claim is not valid as in the absence of partnership deed, no salary is allowed to partners.

Ans. 5 Chander's claim is not valid as in the absence of partnership deed interest on partners loan is provided @ 6% p.a.

Ans. 6 As per provision of Indian Partnership act 1932, when there is no partnership, no partner is entitled for interest on his capital contribution.

Ans. 7 Interest on drawing = $12000 \times 6/100 \times 6.5/12 = 390$

Ans. 8 Interest on drawing = $9600 \times 6/100 \times 5.5/12 = 264$

Ans. 9

ANALYSIS TABLE

	A	B	C
Interest on Capital (3 years) Cr.	30000	24000	21000
Adjustment of profit Dr.	25000	25000	25000
	(Cr) 5000	(Dr) 1000	(Dr) 4000)

Journal Entry :-

B's current A/C	Dr. 1000	
C's Current A/C	Dr. 4000	
To A's current A/C		5000

(Adjustment entry for omission of interest on capital @ 10% p.a.)

Ans. 10

ANALYSIS TABLE

	X	Y	Z	Total
Interest on drawings (Dr)	750	630	600	1980
Adjustment of profit (Cr)	990	660	330	1980
	(Cr) 240	(Cr) 30	(Dr)270	-

Z's Capital A/C	Dr. 270	
To X's Current A/C		240
To Y's current A/C		30

(Adjustment entry for omission of interest on drawings @ 5 % p.a.)

	C's current A/C	Rs. 44,000
Ans. 15	Net profit transferred to A's Capital A/C	Rs. 4,650
	B's Capital A/C	Rs. 3,100

CHAPTER:3
RECONSTITUTION OF PARTNERSHIP

ADMISSION OF A PARTNER

Ans. 1 Need of valuation of goodwill arises on the following occasions:-

- (i) Change in profit sharing ratio of existing partners.
- (ii) Admission of a partner.
- (iii) Retirement of a partner.
- (iv) Death of a partner.

Ans. 2 It is necessary to revalue assets and reassess liabilities at the time of admission of new partners as if assets and liabilities are overstated or understated in the books then its benefits or loss should not affect the new partner.

Ans. 3 Sacrificing ratio is the ratio in which old partners have agreed to sacrifice their share of profit in favour of the new partner. This ratio is calculated by deducting the new ratio from the old ratio.

$$\text{Sacrificing Ratio} = \text{Old Ratio} - \text{New Ratio}$$

Ans. 4 (i) On admission of a new partner.
(ii) On change on profit sharing ratio of existing partner.

Ans. 5 (i) Capital employed = Assets – Liabilities
= 540000 – 80000
= Rs. 460000

(ii) Normal Profit = Capital employed X Normal rate of return/100
= Rs. 460000 X 10/100 = 46000

(iii) Super Profit = Firm's Average profit – Normal Profit
= 60000 – 46000
= 14000

(iv) Goodwill = Super profit X 100/ Normal rate of return
= 14000 X 100/ 10
= 140000

Ans. 6 (i) Super profit = Value of goodwill /Number of years purchase
= 180000/2
= 90000

(ii) Normal Profit = Capital employed X Normal rate of return /100
= 1000000 X 15/ 100
= 150000

$$\begin{aligned} \text{(iii) Average Profit} &= \text{Normal Profit} + \text{Super profit} \\ &= 150000 + 90000 \\ &= 240000 \end{aligned}$$

$$\begin{aligned} \text{Ans. 7 (i) Super profit} &= \text{value of goodwill} / \text{number of years purchase} \\ &= 240000 / 3 \\ &= 80000 \end{aligned}$$

$$\begin{aligned} \text{(ii) Normal Profit} &= \text{Average profit} - \text{Super profit} \\ &= 20000 - 8000 \\ &= \text{Rs. 12000} \end{aligned}$$

$$\begin{aligned} \text{(iii) Capital Employee} &= \text{Normal Profit} \times 100 / \text{Normal rate of return} \\ &= 12000 \times 100 / 8 \\ &= 150000 \end{aligned}$$

$$\begin{aligned} \text{Ans. 8 Rahul's sacrificing share} &= 4/7 \times 1/4 = 1/7 \\ \text{Sahil's sacrificing share} &= 3/7 \times 1/3 = 1/7 \\ \text{Rahul's new share} &= 4/7 - 1/7 = 3/7 \\ \text{Sahil's New share} &= 3/7 - 1/7 = 2/7 \\ \text{Kamal's share} &= 1/7 + 1/7 = 2/7 \\ \text{New profit sharing ratio} &= \mathbf{3:2:2} \end{aligned}$$

$$\begin{aligned} \text{Ans. 9 Ajay's sacrifices} &= 1/4 \times 2/3 = 2/12 \\ \text{Naveen's sacrifices} &= 1/4 \times 1/3 = 1/12 \\ \text{Ajay's new share} &= 5/8 - 2/12 = 11/24 \\ \text{Naveen's New share} &= 3/8 - 1/12 = 7/24 \\ \text{Surender's share} &= 1/4 \text{ or } 6/24 \\ \text{New ratio} &= \mathbf{11:7:6} \end{aligned}$$

Ans. 10

$$\begin{aligned} \text{Old ratio} &= \text{A: B} = 3:2 \\ \text{A surrender} &= 3/5 \times 1/6 = 3/30 = 1/10 \\ \text{B surrender} &= 2/5 \times 1/4 = 1/10 \\ \text{A's new share} &= 3/5 - 1/10 = 5/10 \\ \text{B's new share} &= 2/5 - 1/10 = 3/10 \\ \text{C's new share} &= 1/10 + 1/10 = 2/10 \\ \text{New ratio} &= \mathbf{5/10, 3/10, 2/10 \text{ OR } 5:3:2} \end{aligned}$$

$$\begin{aligned} \text{Sacrificing Ratio} &= \text{Old ratio} - \text{New ratio} \\ \text{A} &= 3/5 - 5/10 = 1/10 \\ \text{B} &= 2/5 - 3/10 = 1/10 \\ \text{Sacrificing ratio} &= \mathbf{1:1} \end{aligned}$$

Ans. 11

$$\begin{aligned} \text{Old ratio} &= 5:3 \\ \text{Shital} &= 1/4^{\text{th}} \text{ Share} \end{aligned}$$

Let the profit be Rs. 1

$$\begin{aligned} \text{Remaining profit} &= 1 - 1/4 = 3/4 \\ \text{Arti : Babita} &= 2:1 \\ \text{Arti's share} &= 3/4 \times 2/3 = 1/2 \\ \text{Babita's Share} &= 3/4 \times 1/3 = 1/4 \\ \text{New Ratio} &= \mathbf{1/2, 1/4, 1/4 \text{ Or } 2:1:1} \end{aligned}$$

Sacrificing ratio = Old ratio – New ratio
 Arti's sacrifices = $5/8 - 2/4 = 1/8$
 Babita's Sacrifices = $3/8 - 1/4 = 1/8$
Sacrificing Ratio = 1:1

Ans. 12 Old ratio = X:Y = 1:1

Z is admitted for $1/6^{\text{th}}$ share which he acquire from X,Y in the ratio of 1:1

Since $1/6 \times 1/2 = 1/12$ from X and Y
 X's new ratio = $3/5 - 1/12 = 31/60$
 Y's New ratio = $2/5 - 1/12 = 19/60$
 Z's share = $1/6$
New ratio = 31/60, 19/60, 1/6 or 31:19:10

Ans. 13

Old ratio = Rakhi : Parul = 3:1
 New ratio = Rakhi: Parul: Neha = 2:3:2
 Rakhi's sacrifice = $3/4 - 2/7 = 13/28$
 Parul's sacrifice = $1/4 - 3/7 = 5/28$ (Gain)

So, Rakhi's sacrifice $13/28^{\text{th}}$ share and Parul is gaining to the extent of $5/28^{\text{th}}$ share.

Ans. 14

Cash A/C	Dr. 1500	
To premium A/C		1500
(cash brought in by Z for his share of goodwill)		
Premium A/C	Dr. 1500	
To X's capital A/C		1000
To Y's Capital A/C		500
(Goodwill distributed among sacrificing partners in the ratio of 2:1.)		

Ans. 15

Cash A/C	Dr. 70000	
To Nilu's capital A/C		60000
To premium A/C		10000
(Cash brought in by new partner)		
Premium A/C	Dr. 10000	
To Priya's capital A/C		10000
(Amount of goodwill distributed among sacrificing partner in their sacrificing ratio.)		

Ans. 16

Cash A/C	Dr. 1000	
To premium A/C		1000
(Amount of goodwill brought in by C)		
Premium A/C	Dr. 1000	
C's capital A/C	Dr. 800	
To A's capital A/C		900

To B's capital A/C		900
(Rs. 1800 distributed among sacrificing partners in sacrificing ratio.)		

A's capital A/C	Dr. 3000	
B's capital A/C	Dr. 3000	
To goodwill A/C		6000
(Old goodwill written off among old partners in old ratio.)		

Q. 17

Cash A/C	Dr. 10000	
To C's capital A/C		10000
(Cash brought in by C for his share of capital)		

A's capital A/C	Dr. 1200	
B's Capital A/C	Dr. 800	
To goodwill A/C		2000
(Old goodwill written off among old partners in old ratio.)		

C's capital A/C	Dr. 3000	
To A's capital A/C		1800
To B's capital A/C		1200
(Adjustment of goodwill on admission of C)		

Ans. 18

Cash A/C	Dr. 4000	
To premium A/C		4000
(Amount of goodwill brought in by new partner)		

Premium A/C	Dr. 4000	
To Piyush's capital A/C		4000
(Goodwill distributed among sacrificing partners in their sacrificing ratio.)		

Ans. 19

Cash A/C	Dr. 26000	
To C's capital A/C		26000
(Amount of capital brought in by new partner.)		

C's capital A/C	Dr. 7500	
To A's capital A/C		3750
To B's capital A/C		3750
(C's share of goodwill distributed among A and B)		

Calculation of Hidden goodwill:-

Capital of A and B	
	= 26000 + 22000
	= 48000
C brings	= 26000 for 1/4 th share
Total capital of the firm	= 26000 X 4/1
	= 104000
Existing capital of the firm	= 48000 + 26000
	= 74000
Goodwill	= 104000 – 74000
	= 30000

$$\text{C's share of goodwill} = 30000 \times \frac{1}{4} = 7500$$

Ans. 20

C's capital A/C	Dr. 5250	
To A's capital A/C		3150
To B's capital A/C		2100
(C's share of goodwill distributed among old partners in sacrificing ratio i.e. 3:2)		

Ans. 21

Cash A/C	Dr. 8000	
To C's capital A/C		8000
(Amount of capital brought in by new partner)		
C's capital A/C	Dr. 2000	
To A's capital A/C		1000
To B's capital A/C		1000
(Share of goodwill distributed among A and B in sacrificing ratio i.e. 1:1)		

Calculation of Hidden Goodwill.

C brings 8000 for 1/5 share

Since total capital of the firm	= 8000 X 5/1
	= 40000
Existing capital of the firm	= 13000 + 9000 + 8000
	= 30000
Goodwill	= 40000 – 30000
	= 10000
C's share of goodwill	= 10000 X 1/5
	= 2000

Ans. 22

C's Capital; A/C	Dr. Rs. 25, 500	
To A's Capital A/C		Rs. 8,500
To B's Capital A/C		Rs. 17,000

Ans. 23

		Rs	Rs
(i) Stock A/C	Dr.	2,44,000	
Building A/C	Dr	2,40,000	
Plant & Machinery A/C	Dr.	1,40,000	
To C's capital A/C			3,36,000
To premium A/C			2,88,000
(ii) Premium A/C	Dr.	2,88,000	
To A's Capital A/C			2,68,800
To B's Capital A/C			19,200

Ans. 24

Z's Capital A/C	Dr.	Rs. 9000	
To X's Capital A/C			Rs. 9000

Chapter -4
RETIREMENT AND DEATH OF A PARTNER

Ans. 1

Basis	Sacrificing Ratio	Gaining Ratio
(i) Meaning	Proportion in which old partners sacrifice their share in favour of new partner.	Proportion in which continuing partner gain the share of outgoing partner on his retirement.
(ii) Occasion	Sacrificing ratio is calculated at the time of admission of new partner.	Gaining ratio is calculated at the time of retirement or death of a partner.
(iii) Formula	Sacrificing ratio = Old ratio – New ratio	Gaining ratio – Old ratio

Ans. 2 Gaining Ratio = New ratio – Old ratio

$$\text{Kamal's Gain} = 4/7 - 1/3 = 5/21$$

$$\text{Kunal's Gain} = 3/7 - 1/3 = 2/21$$

$$\text{Gaining Ratio} = 5:2$$

Ans. 3 Old ratio = P Q R
7 : 2 : 1

New ratio = Q R
2 : 1

Gaining Ratio = New ratio – Old ratio

$$\text{Q's gain} = 2/3 - 2/10 = 4/30$$

$$\text{R's gain} = 1/3 - 1/10 = 7/30$$

$$\text{Gaining Ratio} = 4:7 \text{ or } 2:1$$

Ans. 4 A's gaining share = $2/5 \times 1/2 = 1/5$

$$\text{A's new share} = 2/5 + 1/5 = 3/5$$

$$\text{C's gaining share} = 2/5 \times 1/2 = 1/5$$

$$\text{C's New share} = 1/5 + 1/5 = 2/5$$

New ratio of A and C = 3:2

Ans. 5

$$\begin{aligned} \text{Y's gaining share} &= 4/9 \times 2/3 = 8/27 \\ \text{Z's gaining share} &= 4/9 - 8/27 = 4/27 \\ \text{Y's new share} &= \text{Old share} + \text{gain} \\ &= 1/3 + 8/27 = 17/27 \\ \text{Z's new share} &= 2/9 + 4/27 = 10/27 \end{aligned}$$

$$\begin{aligned} \text{New Ratio} &= 17:10 \\ \text{Gaining ratio} &= 8/27 : 4/27 \text{ or } 2:1 \end{aligned}$$

Ans. 6

$$\begin{aligned} \text{Old Ratio} &= 3:2:1 \\ \text{Z Retire} & \\ \text{X's Gaining} &= 1/6 \times 2/3 = 2/18 \\ \text{X's New share} &= 3/6 + 2/18 = 11/18 \\ \text{Y's Gaining} &= 1/6 \times 1/3 = 1/18 \\ \text{Y's new share} &= 2/6 + 1/18 = 7/18 \\ \text{New Ratio} &= 11/18, 7/18 \text{ Or } 11:7 \end{aligned}$$

$$\begin{aligned} \text{Ans. 7 Old ratio} &= P Q R \\ &= 4:5:6 \end{aligned}$$

$$\begin{aligned} \text{Q retired} & \\ \text{P's gaining} &= 1/3 \times 5/15 = 1/9 \\ \text{P's new share} &= 4/15 + 1/9 = 17/45 \\ \text{R's Gaining share} &= 2/3 \times 5/15 = 2/9 \\ \text{R's new share} &= 6/15 + 2/9 = 28/45 \\ \text{New Ratio} &= 17:28 \end{aligned}$$

$$\begin{array}{l} \text{Ans. 8 Rohit's capital A/C} \quad \text{Dr. 24000} \\ \quad \text{To Mayank's capital A/C} \quad \quad \quad 6000 \\ \quad \text{To harshit's Capital A/C} \quad \quad \quad 18000 \\ \text{(Adjustment Entry for treatment of goodwill in gaining ratio.)} \end{array}$$

$$\begin{array}{l} \text{Ans. 9 Suresh capital A/C} \quad \text{Dr. 48000} \\ \quad \text{To Ramesh's capital A/C} \quad \quad \quad 12000 \\ \quad \text{To Naresh capital A/C} \quad \quad \quad 36000 \\ \text{(Goodwill adjusted among the gaining partner in gaining ratio.)} \end{array}$$

$$\begin{array}{l} \text{Ans. 10 O's capital A/C} \quad \text{Dr. 40000} \\ \quad \text{To C's capital A/C} \quad \quad \quad 20000 \\ \quad \text{To M's capital A/C} \quad \quad \quad 20000 \\ \text{(Adjustment of goodwill in gaining partners in their gaining ratio.)} \end{array}$$

$$\begin{array}{l} \text{Ans. 11 Profit and loss suspense A/C} \quad \text{Dr} \\ \quad \text{To deceased partner's capital A/C} \end{array}$$

$$\begin{aligned} \text{Ans. 12 Total profit for the year ended 31}^{\text{st}} \text{ March 2007} &= \text{Rs } 300000 \\ \text{Y's share of profit up to date of death} &= 300000 \times 2/6 \times 3/12 \\ &= 25000 \end{aligned}$$

Profit and Loss suspense A/C	Dr. 25000	
To Y's capital A/C		25000
(Y's share of profit transferred to Y's capital A/C)		

Ans. 13 Profit and Loss suspense A/C	Dr. 10000	
To B's capital A/C		10000
(B's share of profit transferred to B's capital A/C)		

A's capital A/C	Dr. 15000	
C's capital A/C	Dr. 5000	
To B's capital A/C		20000
(B's share of goodwill transferred to B's capital A/C and debited to remaining partners capital A/C in their gaining ratio.)		

B's share of profit	=	Number of days from 1 April to 12 th June 2007
	=	73 Days
B's share of profit	=	150000 X 1/3 X 73/365
	=	Rs. 10000

Ans. 15 Profit & Loss suspense A/C	Dr. Rs. 12,500	
To C's capital A/C		Rs. 12,500

CHAPTER - 5

DISSOLUTION OF PARTNERSHIP FIRM

Ans. 1 In case of dissolution of partnership, the firm may continue its business operation but in case of dissolution of partnership firm, the business operations are discontinued.

Ans. 2 Realisation account is prepared to ascertain profit or loss on sale of assets and payment of liabilities.

Ans. 3 Realisation Account is prepared on dissolution of partnership firm and Revaluation account is prepared on reconstitution of partnership firm.

Ans. 4 Yustin's claim is valid as according to section 48 (b) of partnership Act, partners loan are to be paid before any amount is paid to partners on account of their capitals.

Ans. 5 Cash A/C	Dr. 11400	
To Realisation A/C		11400
(For debtors realized on dissolution of firm)		

Ans. 6 Kamal's capital A/C	Dr. 4000	
To cash A/C		4000
(for final payment to Kamal)		

Ans. 7 (i) A's capital A/C	Dr. 15000	
B's capital A/C	Dr. 15000	
To realization A/C		30000
(For transfer of loss on dissolution)		
(ii) A's capital A/C	Dr. 5000	
B's capital A/C	Dr. 15000	
To cash A/C		20000
(For final payment to partners)		

Ans. 8

JOURNAL			
		Dr. (Rs)	Cr. (Rs.)
(a)	Realisation A/C To Bank A/C	12000	12000
(b)	B's capital A/C Dr. To realisation A/C	6,000	6,000
(c)	A's capital A/C Dr. B's capital A/C To Realisation A/C	10,000 4,000	14000
(d)	B's capital A/C To bank A/C	2,000	2,000
(e)	A's capital A/C Dr. B's capital A/C Dr. To deferred revenue advertising expenditure A/C	20,000 8,000	28,000
(f)	Bank A/C Dr. To realisation A/C	200	200

**SUGGESTED ANSWERS
ON
HOTS
Subject: Accountancy**

**CLASS – XII(As per NCERT
Book)
Part –B
Accountancy Company
Accounts and Analysis of
Financial Statements**

**CHAPTER-1 &2
ACCOUNTING FOR SHARE CAPITAL & DEBENTURE**

THEORETICAL QUESTIONS

Ans.1 No' because Interest on debentures is a charge against profit and not an appropriation of profit.

Ans. 2 Debenture Redemption Reserve Account.

Ans. 3 Redemption of debentures by conversion.

Ans. 4 Capital Nature.

Ans. 5 Yes. [Hint See section 78]

Ans. 6 According to table 'A' not exceeding 6 % p.a.

Ans. 7 Section 79 Companies Act- the shares must be of a class already issued. So a company cannot issue shares at a discount in its Initial Public Offer.

Ans. 8 It is restricted under section 78 of Indian Companies Act.

Ans. 9 Mention the provisions of section 78.

Ans. 10 Basis of difference :

- (i) Ownership
- (ii) Return
- (iii) Voting Right
- (iv) Convertibility

Ans. 11 No.

Ans. 12 As per SEBI guidelines, an amount equal to 50% of the debenture issue, must be transferred to DRR before the redemption begins.

Ans. 13 The following companies are exempted from the obligation of creating DRR –

- (i) A company which has issued debentures with a maturity of 18 months or less.
- (ii) Infrastructure companies, which are wholly engaged in the business of developing, maintaining and operating infrastructure facilities.

Ans. 14 A Company can reissue forfeited shares at a discount not more than amount forfeited on these shares.

PRACTICAL QUESTIONS

Ans. 1 Interest on Calls in advance Rs. 2.80

Interest on Calls in arrears Rs. 5.50

Ans. 2

Solution:-

(i)	Sundry Assets A/C Dr. Goodwill A/C Dr. To Sundry Liabilities To Y Ltd.	660,000 20,000	80000 600000
(ii)	Y Ltd. Dr. To Bank A/C	60,000	60000
Case I	Y Ltd Dr. To Equity share capital A/C	540,000	540,000

Case II	Y Ltd Dr. To Equity share capital A/C To securities premium A/C	540,000	450,000 90,000
Case III	Y' Ltd Dr. Discount on issue share A/C Dr. To Equity share capital A/C	540,000 60000	600,000

Ans. 3 Issued Capital Rs. 95000.

Ans. 4 Hint-

- (i) Amount received on allotment Rs. 26,100.
- (ii) Amount transferred to share forfeited A/C Rs. 900
- (iii) Amount transferred to Capital Reserve Rs. 600.

Ans. 5 Capital Reserve Rs. 990.

Ans. 6

Hints-

- (1) Case a (i) – No. of preference shares issued 7752.
- (2) Case a (ii)- No. of debentures issued 1530.
- (3) Remaining 85000 debentures paid in cash.

Ans. 7 Interest on Calls in advance = 15 + 3 = Rs. 18

Ans. 8

- (i) Dr. Bank A/C Rs. 16,90,000, Cr.Eq.share Application A/C Rs. 16,90,000.
- (ii) Dr.Eq.Share Application A/C Rs. 16,90,000, Cr.Eq. share Capital A/C Rs.10,00,000, Cr. Security premium A/C Rs. 300,000, Cr. Bank A/C Rs. 3,90,000.

Ans. 9 Amount of discount = Rs. 90,000

Discount to be written off:

2001-02	-	Rs. 25,000
2002-03	-	Rs. 25,000
2003-04	-	Rs. 20,000
2004-05	-	Rs. 12,500
2005-06	-	Rs. 7,500

Ans. 10

- Hint : (i) Loss on sale of investment Rs. 2575.
(ii) Amount transferred to General Reserve Rs. 1,47,425.

Ans. 11 Case (i) – No. of Equity shares to be issued 1,600.

Case (ii) – No. of Equity shares to be issued 1,440.

Ans. 12

Journal of B Ltd.

(a)

(i) Bank A/C	Dr. 28,50,000	
To. Deb. Application & Allotment A/C		28,50,000
(ii) Deb. Application & allotment A/C	Dr. 28,50,000	
Discount on issue of Debentures	Dr. 1,50,000	

Journal of E Ltd.

(b)

(i) Bank A/C	Dr. 57,000	
To. Deb. Application & Allotment A/C		57,000
(ii) Deb. Application & allotment A/C	Dr. 57,000	
Loss on issue of Debentures A/C	Dr. 9,000	
To 12 % debentures A/C		60,000
To Debenture Redemption Premium A/C		6000

Journal of F Ltd.

(c)

(i) Bank A/C	Dr. 73,500	
To. Deb. Application & Allotment A/C		73,500
(ii) Deb. Application & allotment A/C	Dr. 73,500	
Loss on issue of Debentures A/C	Dr. 7,000	
To 12 % debentures A/C		70,000
To Securities premium A/C		3,500
To Debenture Redemption Premium A/C		7,000

Ans. 13 Capital Reserve Rs. 10,000

Ans. 14 Capital Reserve Rs. 600

Ans. 15 Capital Reserve Rs. 4,800.

Analysis of Financial Statements

Ans:1 (i) Calls in Arrears: It is deducted from the subscribed capital.
 (iii) Calls in Advance: It is shown separately under the subscribed capital.

Ans:2 Items	Heading	Sub-Heading
Proposed dividend	Current Liabilities & Provision	Provision
Unclaimed dividend	Current Liabilities & Provision	Current Liabilities

Ans:3 (i) Government Securities.
 (ii) Sinking Fund Investment.

Ans:4 Balance sheet as on_____

Liabilities	Rs.	Assets	Rs.
Share capital		Fixed Assets	
Reserve & surplus		Investment	
Secured Loans		Current Assets,	
Unsecured Loans		Loan and Advances	
		(a) Current Assets	
		(b) Loans & Advance	
Current Liabilities & Provision		Miscellaneous Expenditures	
(a) Current Liabilities		Profit & Loss amount	
(Dr.Balance)			
(b) Provision			

Ans:5 (i) Fixed Assets.
 (ii) Miscellaneous Expenditures
 (iii)Current Assets Loans & Advance under Current Assets.
 (iv)Reserve and Surplus.
 (v)Fixed Assets.

Ans:6 Total of Balance Sheet Rs.18,50,000.

Ans:7 (i) Claims against the Company not acknowledged as debts .
 (ii) Uncalled Liability on partly paid shares.
 (iii)Arrears of Dividend on Cumulative preference shares.

Ans:8 Non-Current Assets – Building, Machinery.
 Non-Current Liabilities – Share Capital , Debentures.

Ans:9 The analysis which is made to review and compare the financial statements of two or more then two
 Years is called Horizontal Analysis.

Ans:10 Comparative Financial Statement.

Ans:11 The Analysis which is made to review the financial statements of one particular year only is called

Vertical Analysis.

Ans:12 Ratio Analysis.

Ans:13 (i) For company's Balance Sheet there are two standard forms prescribed under the companies Act.1956

Whereas there is no standard form prescribed under the Indian partnership Act,1932 for a partnership

Firms balance sheet.

(ii) In case of a company's Balance sheet previous years figures are required to be given whereas it is

not so in the case of a partnership firms balance sheet.

Ans:14 (i) Uncalled Liability on share partly paid up .

(ii) Arrears of fixed Cumulative Dividend.

Ans:15 Balance of a Company is prepared ' as at a particular date ' .

Ans:16 Part I of Schedule VI to the Companies Act.1956.

Ans:17 Analysis of financial statements is affected from the limitation of window dressing as companies hide

Some vital information or show items at incorrect value to portray better profitability and financial

Position of the business, for example the company may overvalue closing stock to show higher profits.

Ans:18 (i) They want to judge the present and future earning capacity of the business.

(ii) They want to judge the safety of their investment.

Ans:19 (i) Comparative Financial Statements.

(ii) Ratio Analysis etc.

Ans:20 Sales.

Ans:21 Percentage Change –

Net sale 25%

Cost of Goods sold 25%

Gross profit 25%

Indirect Expenses 87.50%

Net profit before Tax 18.05%

Income Tax 41.67%

Net Profit after Tax 5.56%

Chapter - 5

Accounting Ratios

Ans:1 Short term financial position of the business is assessed by calculating current ratio and liquid ratio.

Ans:2 (i) Payment of current liabilities.
(ii) Issue of share capital etc.

Ans:3 Sale of stock at cost price.

Ans:4 (i) because there is uncertainty whether it will be sold or not.
(ii) It will take time before it is converted into debtors' and cash.

Ans:5 Quick ratio will improve as both the liquid assets and current liabilities will decrease by the same
Amount.

Ans:6 Conversion of debentures into shares.

Ans:7 Accounting ratios are calculated from financial statements, which are drawn on the basis of historical
Cost as recorded in the book of accounts .

Ans:8 Total Assets to Debt Ratio.

Ans:9 Debt-Equity-Ratio.

Ans:10 $100 - 78 = 22\%$

Ans:11 No change because it will neither affect net credit sales nor average receivable.

Ans:12 Debt-equity ratio will decrease because the Long-term loans remain unchanged where as the

Shareholders funds are increased by the amount of share capital issued .

Ans:13 Purchase of goods for cash .

Ans:14 Debt equity ratio will not change as the total amount of shareholders funds will remain same.

Ans:15 Payment of current Liabilities Rs.3,00,000.

Ans:16 Net gain to shareholders Rs.60,000.

Ans:17 Closing stock = Rs.14,285.

Opening stock = Rs.35,715.
Ans:18 Stock turnover Ratio = 4 times .
Ans:19 Cost of goods sold =Rs.8,48,400.
Ans:20 Opening stock Rs. 50,000.
Closing stock Rs. 1,50,000.
Ans:21 (a) Net profit before interest Rs.14,00,000
capital employed Rs. 28,00,000
Return on investment 50%.
(b)Earning per share Rs. 4.

Chapter - 6

Cash Flow Statement

Ans:1 Cash Flow statement is prepared on cash basis of accounting but profit is calculated on accrual basis.

So cash flow statement is not a judge of profitability.

Ans:2 Under accounting standard-3(Revised).

Ans:3 Depreciation reduces the net profit without reducing the cash balance as it is a non-cash item.

Ans:4 As Operating Activities.

Ans:5 Operating Activities.

Ans:6 As Outflow under Investing Activities.

Ans:7 Give any two examples-

- (i) Acquisition of fixed asset by issue of debentures or shares.
- (ii) Conversion of debentures into shares.

Ans:8 Classified as Financing Activities.

Ans:9 It will be operating activities in case of a finance company and investing activities in case of

Non-Financing Company.

Ans:10 (i) Operating Activities.

(ii)Investing Activities.

(iii)Financing Activities.

Ans:11 ...= Net Increase /Decrease in cash and Cash Equivalentents.

Ans:12 Direct Method and Indirect Method.

Ans:13 Investing Activities Because

Ans:14 Investing Activities Because

Ans:15 Cash from Operating Activities Rs.1,03,800.

Ans:16 (i) Cash Inflow From Operating Activities Rs.80,000.
(ii)Cash Outflow on Investing Activities Rs.1,60,000,
(iii)Cash Inflow From Financing Activities Rs. 1,00,000.

ASSIGNMENTS –BUSINESS STUDIES

(For Average & Below average)

UNIT 1 NATURE & SIGNIFICANCE OF MANAGEMENT

1. What is meant by management? 1
2. How does management help in increasing efficiency? 1
3. “Efficiency & effectiveness are related terms”. Explain 1
4. Why is it said that “management is all pervasive”? 1
5. Why is it said that “management is a goal oriented process”? 1
6. Why is management a group activity? 1
7. Why is management considered as” Multi- dimensional” concept? 1
8. What are the organisational objectives of management? 1
9. What are the social objectives of management? 1
- 10.What are the personal objectives of management? 1
- 11.What do you mean by ‘Levels of management’?
- 12.What is meant by “coordination” in management?

Or

Name the process by which a manager synchronises the activities of different departments. 1

13.Distinguish between the terms ‘effective’ & ‘efficiency’. 3

14.State any three functions of top level of management?

Or

State any three functions of middle level management?

Or

State any three functions of lower level of management? 3

15. Delhi CM Mr. Arvind Kejriwal launched Odd Even rule for cars in Delhi to cut pollution by restricting the number of cars running on city road.

Identify and explain the objective of Management highlighted by our Chief Minister in the above case. 3

16. Shahrukh Khan is an epitome of success. He adds humour and humane touch in his performances at the live shows. He has redefined the image of a lead actor in cinema and given it a 'negative, sympathetic and glamorous look'. A manager also redefines and creates styles and techniques based on his experience and imagination. Identify the nature of management form the given statement 3

17. "Coordination is needed at all levels of management & it is the responsibility of all managers." Explain how?

4

Or

Coordination is not a separate function of management. It is the essence of management." Explain with the help of suitable example.

5

18. Alia Enterprises, a company was initially producing grinders and mixers. Now, with the changing scenario and emerging trends of working women there is a greater demand for a product which is more efficient and a multi-tasker. On analyzing the situation, the company decided to penetrate into the market for producing Food Processor. Which level of management will take this decision? 4

19. "Their task is to carry out the plans formulated by the top management." Name the level of management & how it is achieved.

5

20. "Management is the process of getting things done with the aim of achieving goals effectively & efficiently". Explain. 5

21. Explain any five characteristics of management. 5

22. Test the fact that 'Management is an art.' 6

23. Management is considered as full-fledged profession? Explain 6

24. Raman agreed to be an employee of a company on the condition that he will be given a project offering competitive salary, career advancement opportunity, promotion and recognition. Mr. John, (general manager) puts Raman in a project in which promotion is not possible. Raman gets disheartened and feels frustrated all the time. Such frustration also reflected in his work and he could not bring desired results.

(a) Which objective of management Raman could not achieve? Explain.

(b) Identify the other two objectives.

(c) What should Mr. John do to avoid such problem? 6

25. Sushil is running a business enterprise producing handloom and handicraft products in Maharashtra under the name 'Fabmart Enterprises'. He

has employed 1,000 craftsmen and artisans in his firm. The basic reason for its existence is to produce those handicraft items which have a market demand & are reasonably priced. He performs all the functions of management all the time with the help of his managers. He is working with a team of individuals who have diverse needs and goals. He along with his marketing experts conducts market survey to know the tastes and preferences of consumers. Thus he adapts to changing environment and produces goods according to the needs of the customers. The employees working in his firm are happy and satisfied, and there is orderliness instead of chaos.

Identify any five features of management from the above para. Also quote lines that denote these features 6

Unit 2

Principles of management

1. Who is Gang Boss? 1
2. What is main objective of 'Time Study.' 1
3. How is the principle of unity of command useful to the management? Explain briefly. 1
4. What is the basic difference between unity of command & functional foremanship?
5. Mr. Ram Kumar, a manager, very often speaks to people at all levels, passing on instructions regarding his department and also the other departments. Which principle of management is being overlooked? Explain the principle in brief.
6. Explain the following: - 4
 - a) Science, not rule of thumb
 - b) Harmony, not discord
 - c) Cooperation, not individualism
 - d) Development of each and every person to his/her greatest efficiency and prosp

7. Mr. Rohit Sharma is the Production Manager of Sanchi Milk Limited, Jabalpur.

He is producing several milk products. Various alternatives are available for producing each product. It is the endeavor of Mr. Sharma that best and cheap alternative be adopted in production. He has made a special arrangement in his department. According to it, a proper place will be earmarked for everything used in the production department. He has also directed the employees of the department that everything should be available at its decided place. There is a provision for awarding punishment to those who ignore the director. All activities of Mr. Sharma's department are closely related to each other. To maintain the balance among them he makes special efforts so that there is no obstruction in production.

- a) Which technique of scientific management is being practiced by the company in the above paragraph?
 - b) Explain briefly the above mentioned technique.
8. Explain the following:
 - a) Functional Foremanship
 - b) Simplification/standardisation
 - c) Work studies
 - d) Mental revolution
 9. State any four points highlighting the importance of principles of management. 4
 10. a) Name & explain the principle of management which requires judicious application of penalties by the management.
 - c) Name & explain the technique of scientific management which helps in establishing interchangeability of manufactures parts & products. 4
 11. Taylor's principles of scientific management & Fayol's principles of management are mutually complementary. Do you agree with this view? Give four reasons in support of your answer. 4

Unit III Business environment

1. Explain the concept of business environment & three features of it. 1
2. It is difficult to forecast changes in business environment. Which feature is being highlighted? 1
3. Why business environment is uncertain? 1
4. Currently there is more demand for equal status of women in job participation. Name the dimensions of business environment involved. 1
5. 'High rate of inflation in economy can adversely affect the performance of the business'. Identify the dimension of business environment mentioned in the above case? 1
6. The reserve bank of India has reduced bank rate in order to increase the lending capacity of commercial banks. Name the dimension of business environment mentioned here. 1
7. The court issued order that for vehicles to be smokeless was most essential & that any one violating this order shall have to pay a heavy fine. Abiding by this order was necessary for

the health of people. Making this strict order of the court as the base, 'Gyan Motors limited' resolved to manufacturer such vehicle by using modern technology as should not produce any smoke at all. The government also announced to provide help in several ways to set up such industrial units. 3 Identify the three dimensions of business Environment described in the paragraph above by quoting the relevant lines. 3

8. What is Micro environment? Explain any four components of it. 4
9. Understanding of environment by business managers enable them not only to identify & evaluate, but also to react to the forces external to their firms. In the light of the statement explain any four points of importance of business environment. 4
10. The Indian corporate sector has come to face with several challenges due to government policy changes in business & industry. Explain any four such changes. 4
11. State any four characteristics of business environment. 4
12. What are the main impacts of DEMONETISATION? 4/5
13. Explain the impacts of privatisation on industry & business in India. 5
14. What are the essential features of liberalisation, privatisation, globalisation ? 6
15. What economic changes were initiated by the government under the Industrial Policy , 1991? What impact have these changes made on business & industry? 6

UNIT 4 PLANNING

1. Which function of management is considered as the primary function of management?
2. Dreams can be turned into reality when managers think in advance what to do & how to do it. Name the function of management indicated by the statement. 1
3. Planning is an important function of management but it is not solution of every problem. Comment 1
4. No one can smoke inside the organisation premises.' Which type of plan is this? Explain. 1
5. Differentiate between rules & methods. 3
6. Differentiate between method & budget . 3

7. Planning always leads to success. Do you agree ? give reasons in support your answer. 5
8. How does a planning not work in dynamic environment & does not guarantee success? Explain. 5
9. After following logical steps in the process of planning, explain the steps required to complete the process.
 - a) Setting objectives
 - b) Developing premises
 - c) Identifying the alternative course of actions 4
10. Describe any four limitations of planning. 4
11. Explain the following features of planning.
 - a) Planning focusses on achieving objectives.
 - b) Planning is mental exercise. 4
12. Planning is an important function of management. State any five reasons in favour of the statement. 5

UNIT 5 ORGANISING

1. Name the function of management which coordinates the physical , financial, & human resources & establish productive relations among them for achievement of specific goals.

or

 ‘Identifying or dividing the work’ is the first step in the process of one of the functions of management. Identify the function.
2. Define organising ‘as a structure’.
3. What types of relationships are shown by organisational structure?
4. Name the organisation which has the benefit of ‘Easy to fix responsibility’.
5. Name the organisation which has limitation of ‘resisting change’.
6. Give reasons of why all organisations do not have similar type of organisation structure.
7. What is the main cause to adopt the divisional organisation structure ?
8. What is the basis of delegation of authority?
9. ‘If we delegate authority, we multiply it by two; if we decentralise it , we multiply it by many.’ Name the two concepts to which statement is related.
10. Define centralisation of authority’.

11. Define decentralisation.
12. With the help of any four points explain the crucial role that organising plays in an enterprise.

Or

State any four points of importance's of organising functions of management.

13. State the steps in the organising process.

Or

'Organising involves a series of steps in order to achieve desired goals.' Explain these steps.

14. Explain the functional structure & draw a diagram depicting a functional structure.

15. Explain the divisional organisational structure & draw an organisational chart of divisional structure.

16. How is functional structure different from a divisional structure?

17. What is the meaning of formal organisation? State any five features of formal organisation.

18. What is informal organisation? State its two advantages & two disadvantages.

19. Differentiate between formal & informal organisation on the basis of (a) origin (b) authority (c) flow of communication

20. Explain briefly the process / elements of delegation.

Or

Delegation is the entrustment of responsibility & authority to another & the creation of accountability for performance.'

Explain the element of delegation in the light of this statement.

21. Distinguish between Authority, responsibility, accountability.

22. Differentiate between delegation of authority & decentralisation.

23. The Managing Director – MD of 'Rahi Footwear Limited', Mr. Jisan 5 Ahmed wants to expand his business. Currently, this company deals in leather shoes. Mr. Ahmed called a meeting of all the four Departmental Managers. He asked all of them to express their views on the expansion of the company. One of them said that a factory should be set up to make school bags. The other one said that a factory for making Ladies' Leather Purses should be setup. The third one suggested for setting up a factory to manufacture socks and the fourth manager was in favour of a factory for making plastic shoes. There was a discussion on all the four options in the meeting and ultimately, the option for making ladies' leather purses was thought to be right. Mr. Ahmed took his job in his own hands.

Mr. Ahmed purchased the factory making ladies leather purses which had already been set up and was running in a loss. Now he determined the different activities to be performed in the new business. He established five departments, so that all activities could be completed easily. Trees in a large number were planted all around the factory so as to provide protection against the bad effect of leather.

(a) Identify the concepts of management described in the paragraph given above.

(b) Quote the lines which help in identifying the concepts identified in the point 'a'.

© Identify the values which this company wants to deliver to the society.

24. A company X limited manufacturing cosmetics, which has enjoyed a preeminent position in business, has grown in size. Its business was very good till 1991. But after that, new liberalized environment has seen entry of many MNCs in the sector. With the result the market share of X Ltd. has declined. The company had followed a very centralized business model with Directors and divisional heads making even minor decisions. Before 1991, this business model had served the company very well as consumers had no choice. But now the company very well as consumers had no choice. But now the company is under pressure to reform.

(i) What organization structure changes should the company bring about in order to retain its market share?

(ii) How will the changes suggested by you help the firm? Keep in mind that the sector in which the company is FMCG? (Fast Moving Consumer goods)

Chapter 6 Staffing

1. What is meant by staffing ?
2. The scope of staffing is limited to employing people.' Do you agree with this statement?
3. 'Staffing is both a line & a staff activity". Comment.
4. How does staffing improve job satisfaction & morale of employees?
5. State how staffing ensures continuous survival & growth of the enterprise?
6. How does staffing help to ensure optimum utilisation of human resources?
7. What is meant by estimating manpower requirement as a step in the process of staffing?
8. What is the purpose of selection?
9. Why is employment interview conducted in the process of selection?

10. Ramesh is working under the guidance of Harish, a carpenter, for the last three years to learn the different skills of this job. Name and explain the method of training Ramesh is undergoing.
11. State the meaning of training. Name & explain the two categories of imparting training.
12. Why staffing is considered a part of Human Resource Management.
13. Distinguish between training & development.
14. Explain 'Estimating manpower requirements' step in the staffing process.
15. Internal sources of recruitment are better than external sources of recruitment.' Explain any five reasons in support of this statement.
16. What is recruitment? Explain any four external sources of recruitment.
17. State the steps in the selection procedure , after the employment interview & before the job offer

Or

State the various steps in the process of selection.

18. Training is beneficial both for the organisation as well as for the employees.' Explain any three benefits of training towards the organisation & any three towards the employees.

6

19. **Name the concepts which relate to the following:**

1. Assessing the present & future requirements of the workers.
2. Determining competence of an employee.
3. Streamlining the attributes of a person required for doing a job.
4. Searching the prospective candidates. 6

20. Silverline Industries wants to hire staff for its steel division. The 4 Personnel department lists out the following methods of recruitment:

- (i) Sudhir Consultants can be asked to look out for suitable personnel on behalf of the company.
- (ii) Participate in placement programme organized by different colleges in Delhi University.
- (iii) Consider voluntary applications received earlier from various job-seekers.
- (iv) Using www.jobstreet.com or www.naukri.com to search for prospective candidates.

Identify the source of recruitment indicated in the given cases. 6

1	What is meant by directing?
2	Explain in one sentence how directing initiates action in management.
3	How does a supervisor act as a link between management & the workers?
4	Give meaning of motivation.
5	Give an example of employees recognition programme' as non-financial incentive.
5	What is meant by need hierarchy?
6	What are incentives?
7	Explain the term leadership.
8	What is meant by authoritative leadership style?
9	Define communication
10	Give two examples of upward communication.
11	
12	State any three organisational barriers to communication.
13	State any three personal barriers to communication.
14	State any three psychological barriers to communication.
15	State any three semantic barriers to communication.
16	Explain any three points highlighting the importance of directing function of management. Or "directing is the heart of management process." Do you agree? Give any three reasons in support of your answer.
17	Explain any three elements of directing.
18	'the supervisor performs a very important role in an organisation by performing multiple functions.' State any four functions.
19	"motivation plays an important role in the success of management." Explain any four points of importance of motivation in the light of this statement.
20	'Maslow's need hierarchy is considered fundamental to the understanding of motivation. Explain the role of need hierarchy in motivation.
21	"Effectiveness of a manger depends on his ability to communicate effectively." Explain how.
22	What is grapevine? Explain with the help of diagram & the most prevalent grapevine system.

23	Distinguish between formal communication & informal communication.
24	What is meant by incentives? Explain the various types of monetary incentives which may be used to motivate the workers.
25	“Human beings can’t be motivated only through monetary incentives; non-monetary incentives are also necessary to motivate them.” Explain any four such non-monetary incentives.
26	“ leadership is a key factor in making any organisation successful.” Do you agree with this statement? Give any four reasons in support of your answer.
27	Explain the communication network. State any five formal communication networks.
28	‘The barriers to effective communication exist in all organisation to a greater or lesser degree.’ State any six measures to overcome these barriers.
29	Rakesh is working under his superior Neeraj. He always communicates useful ideas & suggestions to his superior regarding reduction of cost, improvement in the product ,etc. Neeraj implements his suggestions & has always found favourable results, but he never appreciate Rakesh for his suggestions. Now Rakesh decided not to communicate any suggestions or ideas to Neeraj. Identify the factor, which acts as a communication barrier. Identify the category of barrier. Explain other factors of the same group of communication barrier.

Controlling

1.	<p>Which function of management ensures that actual activities conform to the planned activities? Or</p> <p>Name the function which reviews the operations in a business unit.</p>
2.	<p>Hina sweets is renowned name for quality sweets since 1935. Harsh , the owner of Hina sweets. Was worried as the sales had declined during the last three months. When he enquired from the sales Manager, the sales manager reported that there were some complaints about the quality of sweets. Therefore, Harsh ordered for sample checking of sweets.</p>
3.	<p>Identify the step taken by Harsh that is related to one of the functions of management.</p>
4.	<p>In controlling why actual performance compared with standards?</p>
5.	<p>Give examples of quantitative & qualitative standards.(one each)</p>
6.	<p>“Controlling is a goal oriented function.” Explain.</p>
7.	<p>What should be the Focus point’ for a manager while controlling , as controlling each & every step is not possible?</p>
8.	<p>How is ‘Management by Exception’ different from ‘Critical Point Control’ technique?</p>
9.	<p>“Controlling is looking back” Explain.</p>
10.	<p>“Controlling is forward looking” Explain.</p>
10.	<p>“Controlling implies taking action.” Explain.</p>
10.	<p>State the relationship between Planning & controlling.</p>
11.	<p>Or</p> <p>“ There is close & reciprocal relationship between planning & controlling.” Explain the statement.</p>
11.	<p>Or</p> <p>“ Controlling is considered blind without planning & planning is meaningless without controlling.” Explain.</p>
11.	<p>Or</p> <p>“ Planning & controlling are inseparable twins of management.” How?</p>
12.	<p>Super textiles Ltd. Reported 43% fall in its profit in the fourth quarter ended 31 March 2018. It is beyond the acceptable range of 25% decided by the company. This was due to higher fuel cost & lower yield on account of demonetisation. The company aims to implement cost –saving measures by restructuring contracts & business processes to meet its target in the future.</p> <p>a) Name the function of management discussed above.</p> <p>b) Identify & explain the steps of the function of management discussed above.</p> <p>Identify the steps of controlling process in the following situations:</p> <p>a) Management of Super Ltd. Replaced the old machinery with latest technology for improving the quality of products.</p> <p>b) The production manager of Zara Ltd. Conducted work study for the</p>

determination of standard time to be taken for producing one unit.

- c) Marketing manager of Young India Ltd. Prepared a variance analysis report for the management. Explain the difference between actual sales & target sales.
- d) Marketing manager calculated the total sales & revenue earned by each executive to conduct appraisals at the end of the financial year.
- e) Finance director analysed deviations between profit forecast & actual profit to find out the causes of deviation.

PART 2
CHAPTER 9 FINANCIAL MANAGEMENT

1.	Define business finance.
2.	What is meant by financial management? Or “Sound financial management is the key to the prosperity of business.” Explain
3.	What is the primary objective of ‘Financial Management’? Or Explain the concept & the objectives of financial management.
4.	What is meant by investment decision? Give two examples of investment decisions. Or the size of assets, the profitability & competitiveness are affected by one of the financial decisions. Name the decision.
5.	How are long term investment decisions crucial for the business?
6.	Identify the decision taken in financial management which affects the liquidity as well as the profitability of the business. Or Name the type of investment decision which relates to short –term & affect day to day operations of a company.
7.	How are short term investment decisions important for a business?
8.	What do you mean by Shareholders funds & borrowed funds? State the examples
9. 9	What is dividend? Or when is the dividend decision treated as a residual decision ?
10.1	What do you mean by financial planning?
11.1	What is required to tackle the uncertainty in respect of availability & timings of funds?
12.1	Explain the objectives of financial planning. Or Explain the ‘twins objective’ of financial planning. Or Name & state the aspect of financial management that enables to foresee the fund requirements both in terms of ‘ the quantum’ & ‘the timings’

13.1 3 .	Define capital structure.
14.1 4 .	When is capital structure said to be optimum?
15.	What is meant by floatation cost?
16.1 5 .	What is the effect of higher use of debt for a business?
17.1 6 .	What is financial leverage? How is it computed? Or Explain the term 'trading on equity'.
18.	Explain when a company should opt for trading on equity.
19.	Explain the term fixed financial charges.
20.	What is meant by 'Financial risk'?
21.	What do you mean by working capital ?
22.	What is 'gross working capital' or 'total working capital'?
23.	State why the working capital needs for the 'Service industry' are different from that of the 'manufacturing industry'
24.	When is an asset more liquid?
25.	“ Financial management is based on three broad financial decisions . Explain these decisions.
26.	What is meant by investment decisions? Give two examples of investment decisions. Or What are 'Capital budgeting decisions? Explain briefly the factors affecting capital budgeting decisions.
27.	Explain any three factors affecting ' Financing decision'. Or “ Determining the overall cost of capital & the financial risk of the enterprise depends upon various factors.”
28.	How are shareholders likely to gain with a loan component in the capital employed? Explain with suitable examples. Or How does Trading on equity increase the return on equity shares? Explain with an example.

29.	<p>How can we judge the impact of financial leverage on the profitability of a business? Explain with an example.</p> <p>Or When is financial leverage considered unfavourable ? Explain with an example.</p>						
30.	<p>Determining the relative proportion of various types of funds depends upon various factors.” Explain any five such factors.</p>						
31.	<p>The directors of Gama ltd. Have decided to modernise the plant & machinery at an estimated cost of Rs. 1 crore, but are in affix whether to issue equity shares & debentures for this purpose. As a finance manager of the company , advise the Directors whether to issue equity shares or debentures in the interest of the company & why?</p>						
32.	<p>State any four factors affecting dividend decision.</p> <p>Or ‘Identify the financial decision which determines the amount of profit earned to be distributed & to be retained in the business’. Explain any four factors affecting this decision.</p>						
33.	<p>Explain the following factors affecting requirements of working capital:</p> <table border="0" style="width: 100%;"> <tr> <td style="width: 50%;">1. Business cycle</td> <td style="width: 50%;">4. Availability of raw materials</td> </tr> <tr> <td>2. Nature of business</td> <td>5. Scale of operations</td> </tr> <tr> <td>3. Seasonal factors</td> <td>6. Production cycle</td> </tr> </table>	1. Business cycle	4. Availability of raw materials	2. Nature of business	5. Scale of operations	3. Seasonal factors	6. Production cycle
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2. Nature of business	5. Scale of operations						
3. Seasonal factors	6. Production cycle						
34.	<p>Explain the following factors affecting the requirements of fixed capital of a company:</p> <table border="0" style="width: 100%;"> <tr> <td style="width: 50%;">1. Scale of operations</td> <td style="width: 50%;">4. Growth prospects</td> </tr> <tr> <td>2. Technology up gradation</td> <td>5. Diversification</td> </tr> <tr> <td>3. Choice of technique</td> <td>6. Financing alternatives</td> </tr> </table>	1. Scale of operations	4. Growth prospects	2. Technology up gradation	5. Diversification	3. Choice of technique	6. Financing alternatives
1. Scale of operations	4. Growth prospects						
2. Technology up gradation	5. Diversification						
3. Choice of technique	6. Financing alternatives						
35.	<p>Mr. Prakash is finance manager in Balaji Ooni Vastra Udyog Ltd.” Company’s product is demanded in a particular season, whereas production continues through the year. Company’s business is spread all across the country. Company has three divisions, namely, Northern divisions, Eastern Division & western division. A main characteristic of the first divisional manager is that he takes any final decisions only after consultation with his subordinates. Second divisional manager has authorised his subordinates to take any decision & so they are free to take their own decision. Third divisional manager keeps with himself all the authorities. He himself takes all the decisions. Participation of the subordinates in decision making is zero. All the three divisions of the company are displaying high level of performance.</p> <p>a) Mention two factors affecting working capital requirement as discussed above.</p> <p>b) As referred to in the above paragraph, all the three divisional managers are following a special kind of leadership style. Identify the</p>						

	same. c) State two more factors affecting working capital requirement.
	Chapter 10 Financial market
1. 1	Explain the concept of financial market.
2. 2	State two major segments of financial markets.
3.	Give two major alternative mechanism through which allocation of funds can be done.
4.	What is financial intermediation?
5.	Who are competing intermediaries in the financial system?
6.	What is allocative function of financial market?
7.	How are financial assets created?
8.	Give meaning of money market. Name any two participants of Money Market
9.	What do you understand by the term 'Treasury bill'?
10.	Which money market instrument is used by banks to maintain cash reserve ratio?
11.	Give meaning of capital market.
12.	What is meant by 'Private Placement of shares'?
13.	What is meant by 'Right issue'?
14.	What does money market consists of?
15.	Outline the major instruments of capital market.
16.	Define the term Stock exchange.
17.	What do you understand by the term Brokers?
18.	What is demutualisation of stock exchange?
19.	Explain dematerialisation of securities.
20.	What is De-mat account? Or List the benefits of De-mat Account.

21.	Why was securities Exchange board of India set up?
22.	SEBI recently called for information & issued a show cause notice to NSE & its 14 officials seeking explanation on the preferential Access allegations at the Exchange's Co-location facility. State the function that SEBI performed by doing so.
23.	In which two cases a company making an 'Initial public offer' is not required to issue prospectus?
24.	State the functions of financial market
25.	Money Market instruments are more liquid than capital Market instruments." comment
26.	What are the features of Commercial bill?
27.	"The stock exchange performs many functions in today's commercial world." Explain such functions of Stock exchange
28.	What is the trading procedure on a stock exchange?
29.	"To promote orderly & healthy growth of securities market & protection of investors, SEBI was set up." With reference to this statement, explain the objectives of the SEBI.
30.	Why was the need for establishment of the SEBI felt? Explain the role of SEBI to fulfil this need.
31.	What are the functions of SEBI? Explain them briefly.
32.	What is meant by 'Capital Market' ? Differentiate between Capital Market & Money Market.
33.	What is meant by Primary Market & secondary Market?
34.	Explain any four methods of floatation of new issue in the primary market.
35.	<p>These days, the development of a country is also judged by its system of transferring finance from the sector where it is in surplus to the sector where it is needed the most. To give strength to the economy, SEBI is undertaking measures to develop the capital market. In addition to this, there is another market in which unsecured & short term debt instruments are actively traded every-day. These markets together help the savers & investors in directing the available funds into their most productive investment opportunity.</p> <p>a) Name the function being performed by the market in the above case. b) Name the market segment other than the capital market segment in which unsecured & short –term debt instruments are traded. Also, give any three points of difference between the two.</p>

36.	<p>Due to change in technology , a company is in immediate need of funds to modernise its plant & machinery. The directors of the company wish to approach stock exchange directly to make a public issue of shares. While the finance Manager recommends to approach an institutional investor for the new issue of shares.</p> <p>a) Identify the methods recommended by the directors. b) Identify the method recommended by the finance manager. c) Evaluate & suggest which method the company should opt for in the given situation.</p>
<u>Chapter 11 Marketing Management</u>	
1.	Define the term Marketing.
2.	Why is Marketing called a social process?
3.	What do you mean by exchange process?
4.	What is meant by ‘Market offering’?
5.	Distinguish between Needs & wants.
6.	State the meaning of Marketing Management.
7.	Why is the understanding of ‘Marketing Management Philosophies’ important?
8.	What is societal concept of marketing? Give any two similarities between the marketing concept & societal concept of marketing.
9.	What are the components of ‘ Marketing Mix’?
10.	<p>Explain ‘Product’ as an element of ‘Marketing Mix’.</p> <p>OR “ A product is a bundle of utilities’. Do you agree</p> <p>OR “ Product is a mixture of tangible & intangible attributes.’ Discuss.</p>
11.	<p>What is Brand & Brand Name?</p> <p>What are features of a good brand name?</p>
12.	What is the difference between Brand mark & trade mark?
13.	<p>What is the purpose of packaging a product?</p> <p>What are the different levels of packaging a product?</p>
14.	What is the difference between packing & packaging?
15.	State the meaning of ‘Product promotion’ and Product identification’ function of packaging.
16.	<p>What is labelling?</p> <p>Explain four functions of labelling?</p>

17.	What is price? Why it is an important element in marketing mix?
18.	What is physical distribution?
19.	What is meant by channels of distribution'? Explain the types of channels of distribution.
20.	What is indirect selling?
21.	Explain the meaning of Zero – level channel or direct selling.
22.	What is one-level channel, two level channels and three- level channel'?
23.	What is meant by promotion? & promotion Mix?
24.	What is advertising? Explain briefly any three features of advertising.
25.	What are the objections of advertising? Or “Advertising is a social waste” do you agree . Give reasons in support your answers.
26.	What is meant by personal selling? Or Salesmanship?
27.	Explain any three qualities of a good salesman.
28.	Differentiate between ‘Advertising’ & ‘Personal Selling’
29.	What is meant by sales promotion? State its objectives
30.	‘Buy one get one free’ is printed on the label of the package of a mosquito repellent. State the labelling function being performed by this statement.
31.	What can be marketed?
32.	Explain briefly the various Marketing functions performed by a modern enterprise. Or Explain Market planning & Product designing & development as function of marketing.
33.	What are the salient features of ‘Marketing concept’?
34.	Differentiate between Marketing & selling on any five basis.
35.	“The elements of marketing mix popularly known as 4’P’s of marketing. Explain briefly.
36.	‘Though branding adds to cost , it provides several advantages to the marketers.’ In the light of the statement, state any three advantages of Branding to marketers.
37.	What are the different levels of packaging?

38.	What is meant by packaging? Give any four points explaining why packaging is important?
39.	State any four functions of packaging?
40.	Explain any four factors which effect the determination of the price of a product.
41.	Name the element of marketing mix in which a set of firms & individuals creates possessions, place & time utility & helps in market offering. Also explain any five important functions performed by this element.
42.	Explain the role of Advertising in marketing management.
43.	Differentiate between 'Advertising' & 'Personal Selling' on any five basis.
44.	What is meant by sales promotion? State & explain the various methods of sales promotion which may be adopted by a business firm.
45.	Explain the role of 'Public relations' in marketing management.
46.	Generally consumers prefer to buy goods directly from the producers but it is not always possible. Give reasons why it is so explaining four different factors responsible for this.
47.	<p>Advertisement is an important business activity. On the other hand, it makes available to the people information regarding different new & old products & on the other hand, it is also a source of living for many persons. Impressed by these traits of advertisement Tanu, Manu & Sanchit, three students of class-XI made up their mind to go ahead with project work on advertisement. All the three conversed with the people about advertisement. Each one of them, on the basis of his survey, concluded as under:</p> <ol style="list-style-type: none"> 1) Tanu opined that advertisement costs get transferred to consumers in the form of high prices. 2) Manu was of the opinion that advertisement showed reality in a twisted form. 3) Sanchit maintained that advertisement was turning people from reality to artificiality. <p>a) What do the above remarks about advertisement hint at? Clarify it. Explain the identified concept points in part (a)</p>
<u>Chapter 12 Consumer Protection</u>	
1.	Explain the concept of consumer protection.
2.	What do you understand by the term <i>Caveat Emptor</i> ?
3.	On which day is the World Consumer Rights Day celebrated?

4.	What is meant by the term Consumer as per the consumer protection Act 1986?
5.	What is the purpose of enacting the consumer protection Act 1986?
6.	Which act of consumer protection provides for the formation of consumer protection councils in every district & state of the country?
7.	Rita wants to buy a packet of juice. As an aware customer, how can she be sure about the quality of juice she plans to buy?
8.	Explain in brief all rights of consumer under consumers protection act 1986.
9.	Explain responsibilities of consumers under consumer protection act 1986.
10.	Who can file complaint under the consumer Protection Act 1986?
11.	Who can file a complaint on behalf of a deceased consumer?
12.	Against whom can a complaint be filed under the consumer protection Act?
13.	Explain the three-tier machinery for redressing the consumer grievances.
14.	State any six reliefs available to a consumer under the consumer protection Act, 1986.
15.	Describe briefly the role & functions performed by non-governmental organisations for consumer protection.
16.	Deepak purchased a new Motor bike for Rs. 80,000 and his friend Mr S Purchased a new motor car for Rs. 22, 00,000. After a few days it was found that Motorbike and car, both were defective. They were thinking to whom they should complain about it. You suggest to both them solution to their problem.
17.	Mr. Soni a consumer purchased medicines without the noticing the date of expiry. He also did not obtain the cash memo. Do you think he will be able to protect himself by the loss caused due to expired medicine? Give reason in support of your answer.
18.	Nimisha purchased new motor car for Rs. 15, 00,000. Immediately after the purchase she notices, some defect in its engine. Soon they contacted the dealer But the dealer paid no need to her complaint. Then she filed her complaint with the District Forum. She was not satisfied with the decision of the District Forum. She filed an appeal against the district forum in the State Commission. She was not satisfied even with the decision of State Commission. Now she challenged the decision of State commission before National Commission. Nimisha was not satisfied with the decision of the National commission also.

	Tell whether Namisha can file appeal in the Supreme Court. Clarify your answer.

ASSIGNMENT FOR BRIGHTERS

CLASS XII SUBJECT GEOGRAPHY

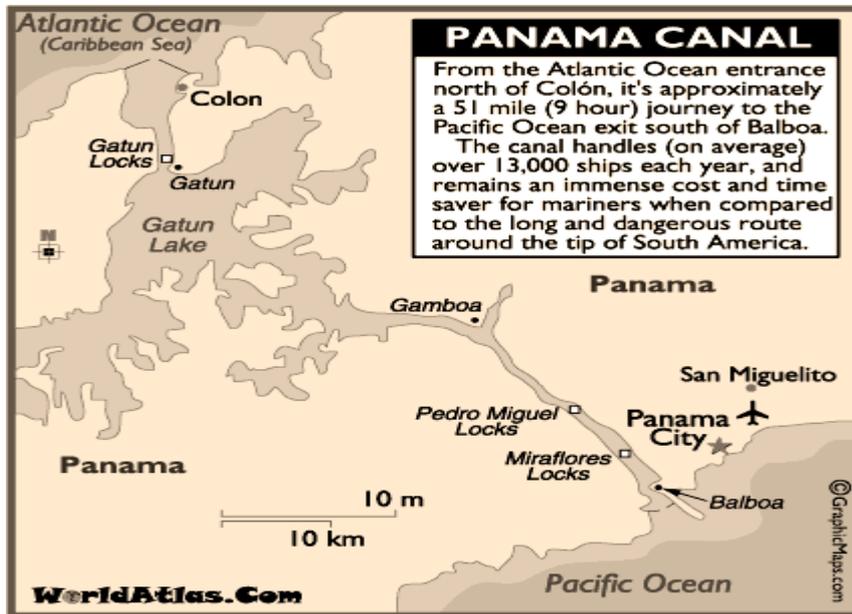
1. On the basis of function classify the towns of the world and explain.
2. What are the adverse effects of W.T.O?
3. Examine the market gardening and horticulture. Write their characteristics.
4. Describe any five factors influencing industries location in the world.
5. Describe the main features of international trade of India.
6. Globalisation along with free trade can adversely affect the economies of countries'. Support the statement with examples.
7. What are the five bases of international trade?
8. Describe any five features of the composition of India's import.
9. Describe five main points of the integrated Tribal Development Projects implemented in Bharmaur region.
10. Explain the problems of slums.
11. What is human development? Describe in brief the four approaches of human development.
12. Explain any 5 economic consequences associated with migration in India.
13. Name the four language families in India. Which one of them is spoken by the largest number of people in the country? Name any four states in which this language is mainly spoken.
14. "The modern economic development in the world is mainly the result of the development of quaternary services." Justify the statement.
15. Define the term tourism. Explain any four factors which attracts tourists in the world.
16. Give the two advantages of manganese. Write the distribution in four manganese states.
17. Define manufacturing and classify them on the basis of their size and write difference between them.
18. On the basis of place of residence, classify the population of the world into two groups. Explain two main characteristics of each group of population.
19. What is mining? Name two type of mining. Give the characteristics of mining.
20. How is development in India a mix bag of opportunities neglect and

deprivation?
21. "The decades 1921-51 are referred to as the period of steady growth of population Whereas the decades 1951-1991 are referred to as the period of population explosion in India." Explain giving reasons
22. What is the use of manganese? Describe the state-wise distribution of manganese in India.
23. How are physical and economic factors responsible for uneven distribution of population in India? Explain with examples.
24. How do slums develop in India? Explain any four miserable conditions of the residents of slum areas
25. What do you mean by urban waste? Explain any three major problems associated with urban waste disposal in India.
26. Explain any five features of nomadic herding in the world. What is the meaning of density of population? Explain with examples four geographical factors influencing the distribution of population in the world.
27. What is the density of population? Explain with examples the four physical factors influencing the distribution of population in the world.
28. Illustrate the theory of demographic transition?
29. Discuss the factors responsible for imbalances in sex-age found in different part of the world and occupational structure.
30. Describe in brief the different trends of population growth in the world from early period to the present day. 5 Marks
31. 22. Classify minerals into two groups on the basis of chemical and physical properties and give one example of mineral of each groups. Mention any two features of the three mineral belts of India. 5 Marks
32. 23. "There is low yield per acre but high yield per person in the interior parts of semiarid lands of the mid-latitudes in the world." Support the statement with suitable examples. 5 Marks
33. 24. Explain any five major environmental problems related to urban settlements in developing countries. 5 Marks
34. 25. How the small size of land holdings and degradation of cultivable land are the two major problems of Indian agriculture?
35. Explain both these problems with examples. 5 Marks
36. Describe any five environmental problems associated with urban settlements in the developing countries of the world. 5x1=5
37. Describe five main points of the integrated Tribal Development Projects implemented in Bharmaur region.
38. On the basis of place of residence, classify the population of the world into two groups. Explain two main characteristics of each group of population. 1+2+2=5

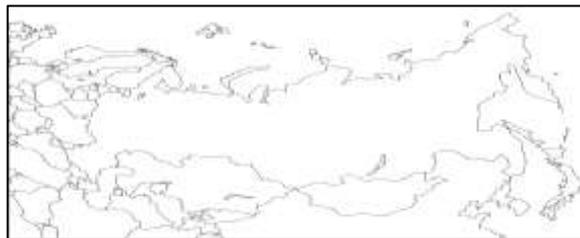
39. "The modern economic development in the world is mainly the result of the development of Quaternary Services". Justify the statement with five suitable.

40. Study the given map and answer the following questions:

- Name the famous shipping canal.
- Name the terminal port cities (A&B).
- Write the two features of this canal.

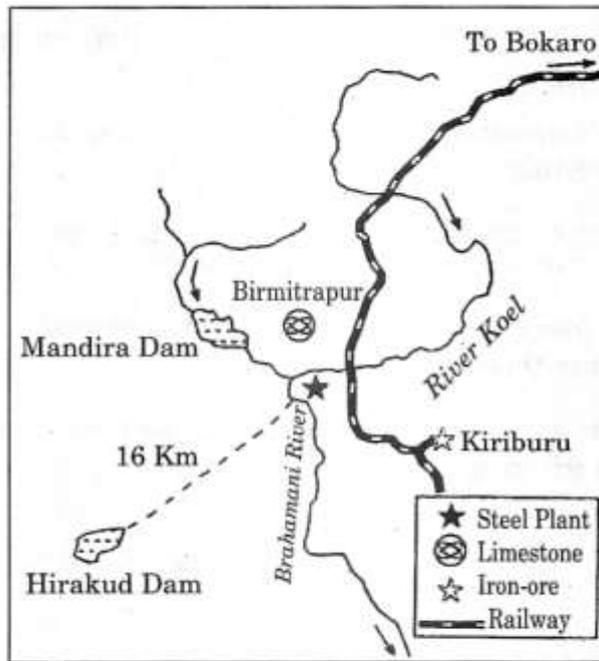


Q43. Study the following map & answer the following:



- Name the railway line shown in the map.
- Name the country does this railway line lie.
- Name the stations marked in the map as A and B

44. Study the following steel plant of India and answer the question given below:



Identify and name the steel plant.

Name two sources of water for this plant.

Which are the sources of raw materials for this plant ?

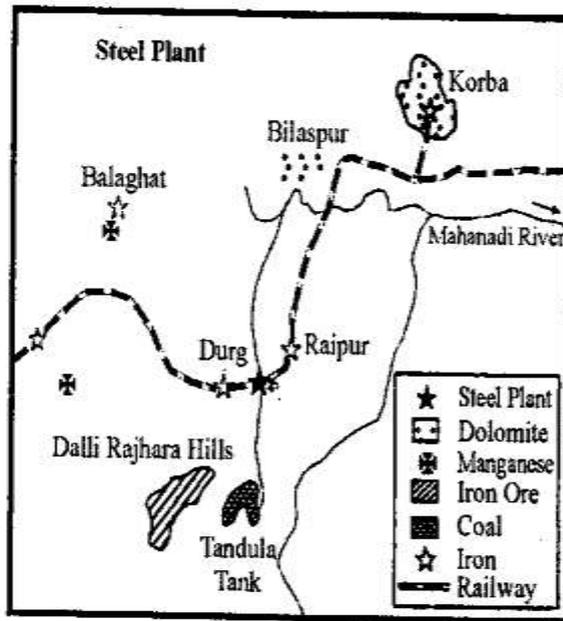
45. Study the given map and answer the question that follows:

- a) Name the northern most, southernmost and western most metropolitan cities of the country and also name the states to which they belong.
- b) Which is the most populated mega city of India?



46.

C



- 1) Identify the steel plant and name it.
- 2) Mention the thermal power plant which supplies power to it.
- 3) Mention the source of water for this plant.

46. Study the given table and answer the following questions.

A Which state has the highest percentage of irrigated area? Give the reason.

B Which state has the lowest percentage of irrigated area? Give reason.

STATE	% OF NET IRRIGATED AREA TO TOTAL BY WELLS AND TUBEWELLS
Gujarat	86.6
Rajasthan	77.2
Madhya Pradesh	66.5
Maharashtra	65
Uttar Pradesh	58.21
West Bengal	57.16
Tamil Nadu	54.7

47. Study the map given below and answer the questions that follow: 3 Marks



- (19.1) Name the trans-continental railway shown in the given map.
 (19.2) Name the terminal stations of this railway line.
 (19.3) Mention any two characteristics of this railway line.

48. Study the given map and answer the question that follows: 3 Marks

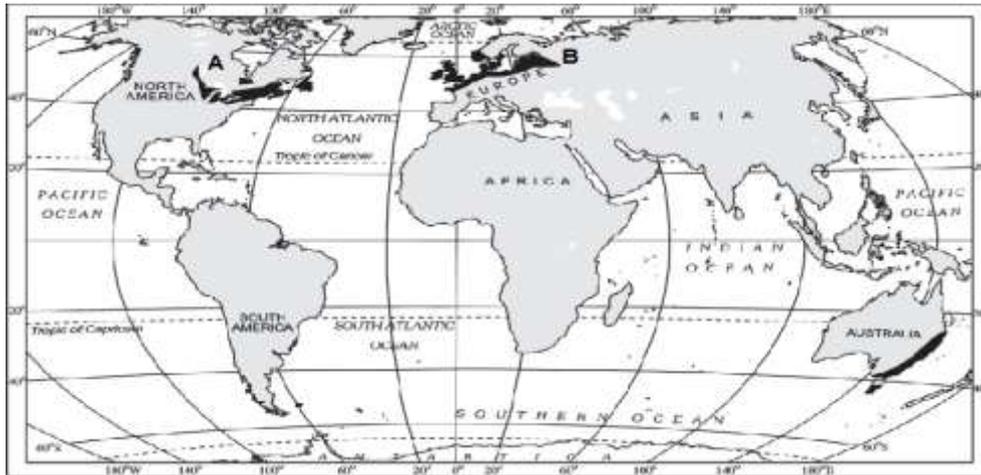
49. Study the above picture and answer the following questions

Give a suitable title to the given picture.

State two typical features of the service shown in the picture. 1+2=3

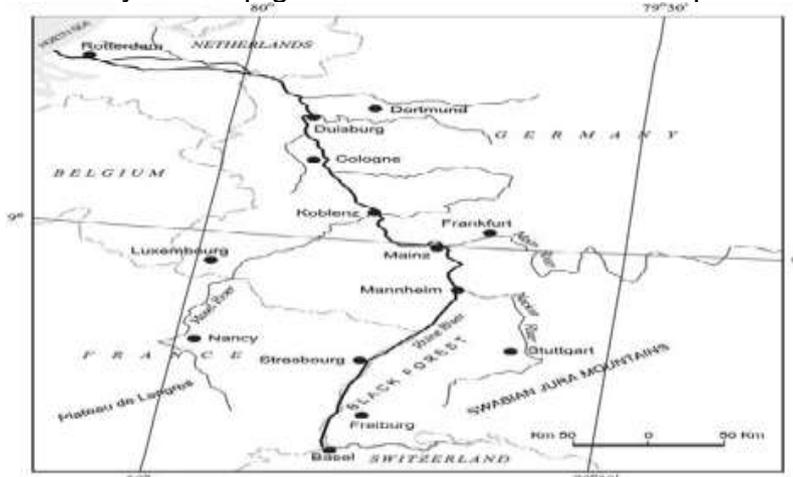


50. 1. Study the given map, showing dairy farming regions, carefully and Answer the following questions:



Dairy Farming Regions

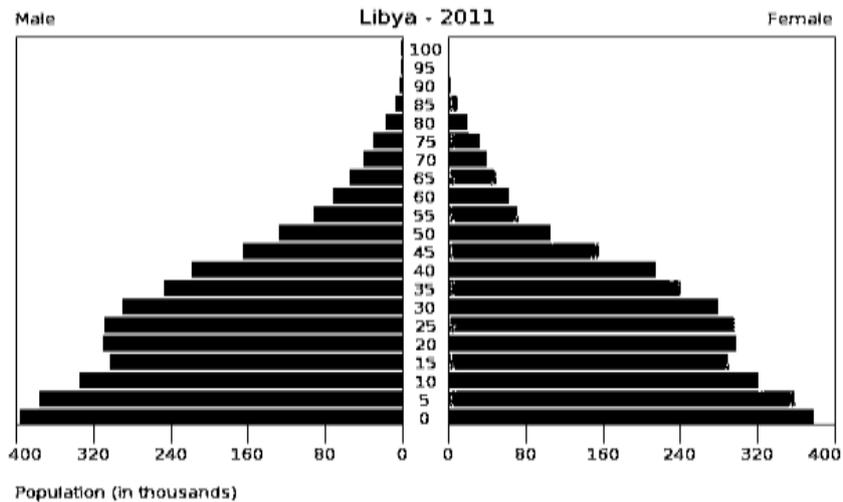
- i) Identify and name the areas A and B, marked on the map.
 - ii) Define 'dairy farming'.
 - iii) Explain any three characteristics of dairy farming.
2. Study the map given below and answer the questions that follow:



- i) Name the inland waterways shown in the given map.
- ii) How has this inland waterway been a boon in the development of the countries through which it passes? Explain
OR Explain the three important aspects of international trade.

51. Study the given figure and answer the followings:

- (1.1) Name the shape of pyramid.
- (1.2) What is the demographic characteristic of this?
- (1.3) To which type of countries does it belong?



52. Study the data and answer the following questions given below.

(1+1+1+1)

(a) Define the term growth of population.

(b) Which decade shows negative growth of population? Give the reason for decline in population in this period.

YEAR	GROWTH RATE IN%
1901	----
1911	(+)5.75
1921	(-) 0.31
1931	(+) 11.6
1941	(+) 14.22
1951	(+)13.31
1961	(+)21.51
1971	(+)24.8
1981	(+)24.66
1991	(+)23.88
2001	(+)21.54

Very Short Answer

In sub-fields of human geography what do we study in Gender geography?
Urban/Rural planning is learnt in which of the fields of Human Geography?
What does help us to understand the demographic characteristics of any area?
What sort of correlation in there in between economic development and population growth?

Short Answer Questions:-

In analytical terms what does basically human geography study?
Do you find any dichotomy in between physical geography and the geography?

Long Answer Questions:-

The scope and nature of human geography can be very well find out in physical environment and its modification by human beings.
Explain positive and negative consequences of migration? 5
Explain three waves of Indian diaspora from ancient time? 5

ASSIGNMENT FOR LOW ACHIEVERS
CLASS XII
SUBJECT GEOGRAPHY
ASSIGNMENT-1

What are the statutory towns?
What is global city? Name any two global cities.
As a field of study what would you include in the extensive reach of geography?
Geography as a discipline has developed dualism. Write the nomenclature used for the dualism.
What could be diagnosed by understanding the secrets of DNA and genetics?
what loses the shackles of environment on human belongs?
When can we imagine the presence of a naturalized human?
When the physical environment does for societies becomes the 'Mother Nature'.
Write the term 'Nature provided opportunities and human being make use of these and slowly nature gets humanized and starts bearing the imprints of human endeavour.'
The introduction of social wellbeing school of thought in human geography is known by what name?
Which school of thought employed the Marxian theory?
Which school of thought laid emphasis or social categories based ethnicity, race population growth and religion.?

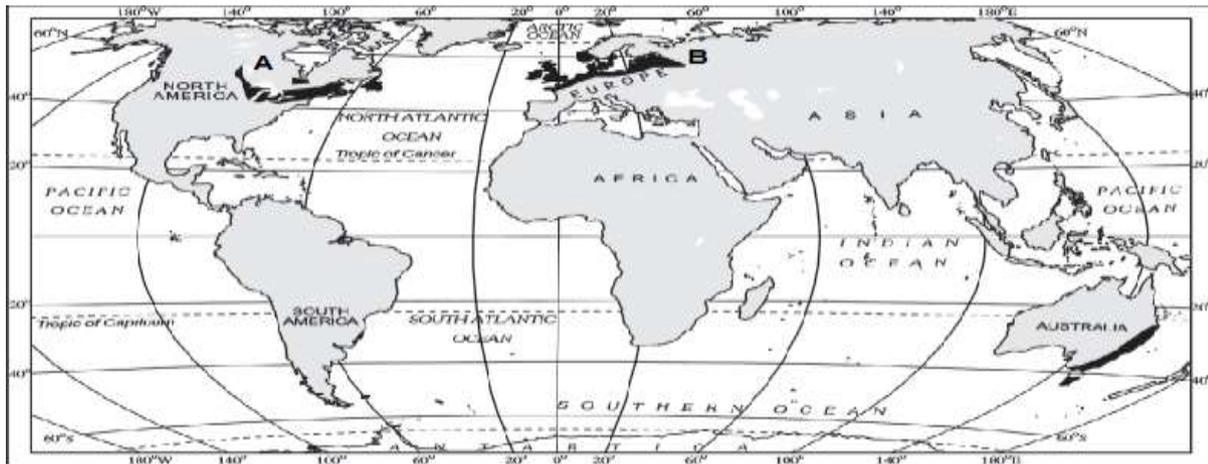
41. What is the use of manganese? Describe the state-wise distribution of manganese in India.
42. How are physical and economic factors responsible for uneven distribution of population in India? Explain with examples.
43. How do slums develop in India? Explain any four miserable conditions of the residents of slum areas
44. What do you mean by urban waste? Explain any three major problems associated with urban waste disposal in India.
45. Explain any five features of nomadic herding in the world. What is the meaning of density of population? Explain with examples four geographical factors influencing the distribution of population in the world.
46. What is the density of population? Explain with examples the four physical factors influencing the distribution of population in the world.
47. Illustrate the theory of demographic transition?
48. Discuss the factors responsible for imbalances in sex-age found in different part of the world and occupational structure.

1. Explain in detail, the three stages of demographic transition theory with example.
2. Why is human development necessary in India? Explain any three reasons.
3. Explain any three factors affecting land degradation in India.
4. What is the source of air pollution? What are the effects on human health?
5. What are the social benefits of ITDP in the Bharmaur Tribal region?
6. What is the meaning of road density? Describe any three factors with examples that affect the density of roads in India.

7. Why conservation of minerals is essential in India? How can we conserve them?
8. Why is irrigation necessary in India?
9. Family planning is spacing or preventing the birth of children. Access to family planning service is a significant factor in limiting population growth & improving women's health. Propaganda, free availability of contraceptives & tax disincentives for large family are some of the measures which can help population control.
10. Read the above paragraph & analysis the following: a) Why are the population controls measures need of the hour? b) Mention the measures through which population can be controlled.
11. Why is medical tourism famous in South East Asia?
12. Difference between clustered settlement and dispersed settlement.
13. Write in about the three main mineral belts of India.
14. Define highways and describe in brief the important highways of North America and Europe.
15. Explain any three features of 'Welfare approach' to human development.
16. Why do people migrate? State the four streams of migration? Explain the three problems faced by slum dwellers in India.
17. Write the short notes on Hugli industrial region.
18. What is water management? What are steps taken by government to promote watershed management?
19. State any three characteristics of rural settlements India.
20. Distinguish between Dry land farming and Wet Land farming in India.
21. Explain the meaning of water quality. Why is quality of water in India deteriorating? Give any two reasons.
22. Explain any three important measures initiated under the new industrial policy of India 1991.
23. Explain three basic areas of human development.3
24. Describe rural- urban composition of the world population.3
25. There is low yield per acre but high yield per person. Why does this happen in prairies and steppes?3
26. What is the meaning of transhumance? State four characteristics of nomadic pastorlism.3
27. "Indian railways have replaced steam engines with diesel and electric engines." Justify.
28. Explain three sources of water pollution by human beings in India.
29. Define the term 'Human Development'. State any 3 indicators which form the basis of calculating the HDI.
30. Which is the two factors affecting tourism in the world? Describe them with examples?
31. .What is the significance of inland water ways in the world?

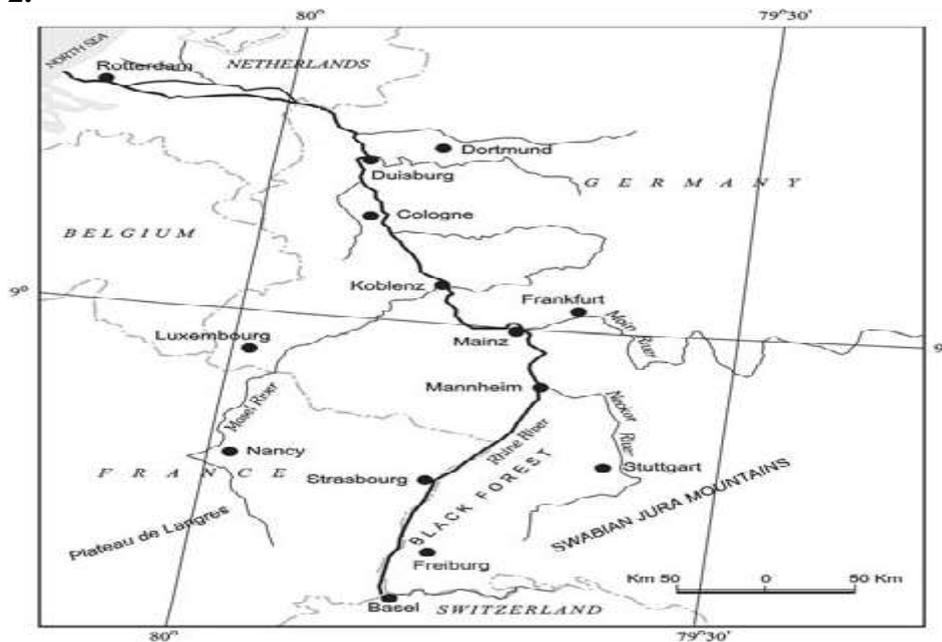
MAP BASED QUESTIONS

1. Study the given map, showing dairy farming regions, carefully and Answer the following questions:- 2013 Dairy Farming Regions



- i) Identify and name the areas A and B, marked on the map.
- ii) Define 'dairy farming'. iii) Explain any three characteristics of dairy farming

2.



- i) Name the inland waterways shown in the given map.
- ii) How has this inland waterway been a boon in the development of the countries through which it passes? Explain

2. Study the map given below and Answer the questions that follow:



- i) Name the railway line shown in the given map.
- ii) Which are the terminal stations of this railways line?
- iii) Name the ports located on the coast of Spencer Gulf through which this railway

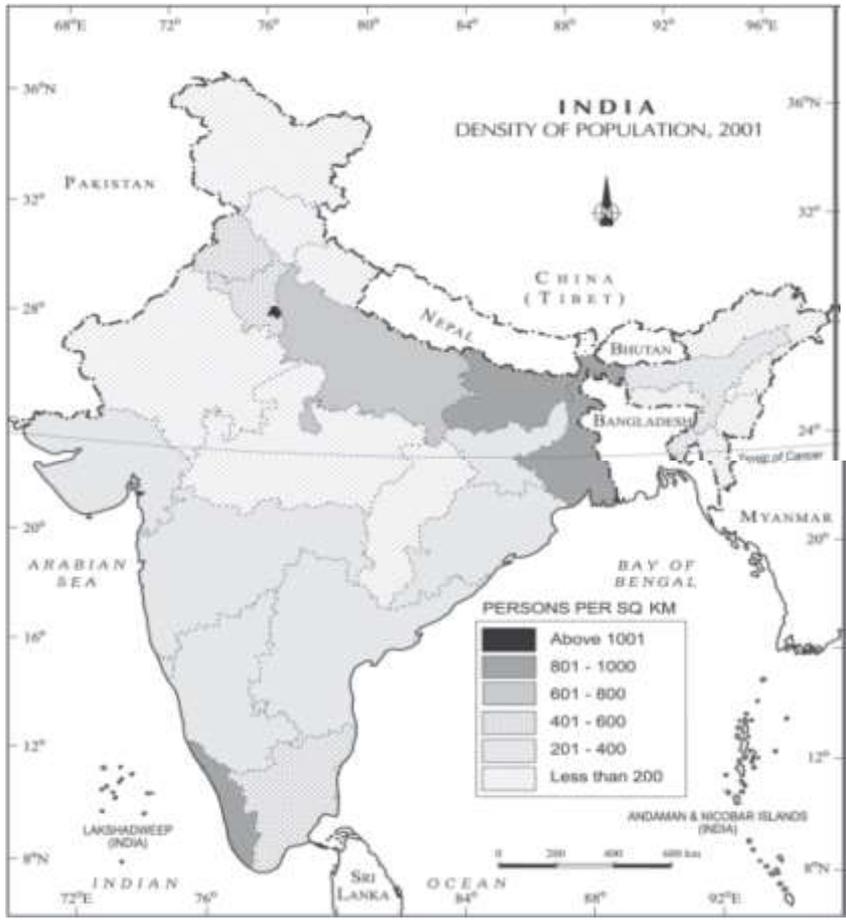


line pa

- i) Identify and name the railway line shown on the map.
- ii) Name the continents linked by this rail route.
- iii) Explain how this railway line is helpful for the promotion of trade in this region.

5. Study the map given and Answer the questions that follow:

- i) Name the Union Territory having the highest density of population. State also its population density according to the given map.
- ii) Name any two states having density of population from 801 to 1000 person per sq. km.
- lii) Name any two states which have population density from 401 to 600 persons per sq. km.



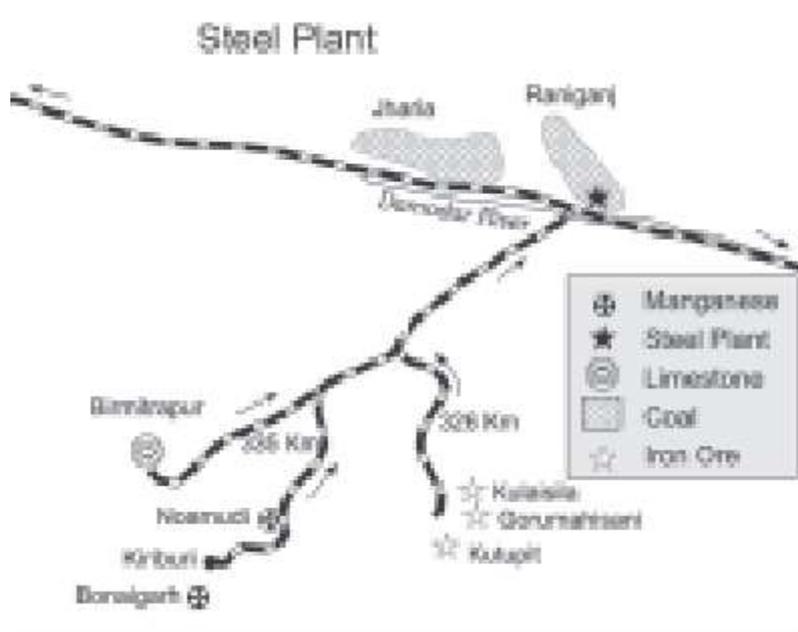


- i) How many metropolitan cities are there in Maharashtra?
- ii) Which one of them is the largest metropolitan city?
- iii) Name the easternmost metropolitan city of India as shown in the map.

Study the diagram showing the location of a major steel plant of India, given below and **Answer** the question that follow:-**201**

- i) Identify and name the steel plant.
- ii) In which state of India is this plant located?
- iii) Name the source of iron ore for this plant.





Study the diagram given below showing the location of a major steel plant in India and answer the questions that follow:-

- i) Identify and name the steel plant shown in this diagram.
- ii) Name two coal-fields which supply coal to this plant.
- iii) Mention the source of water supply for this plant.

ARMY PUBLIC SCHOOL
CLASS – XII
ASSIGNMENT – A THING OF BEAUTY

1. Read the extract given below and answer the questions that follow.

*Therefore, on every morrow, are we wreathing
 A flowery band to bind us to the Earth,
 Spite of despondence, of the inhuman dearth
 Of noble natures, of the gloomy days,
 Of all the unhealthy and o'er-darkened ways
 Made for our searching*

- (a) What are the flowery bands that bind us to the Earth?
- (b) What message do the above lines convey?
- (c) Why is there an “inhuman dearth of noble natures”?
- (d) What do you understand by “unhealthy and o’er-darkened ways”?

2. Read the extract given below and answer the questions that follow.

*A thing of beauty is a joy forever
 Its loveliness increases, it will never
 Pass into nothingness; but will keep
 A bower quiet for us and a sleep
 Full of sweet dreams and health and quiet breathing*

- (a) How does a thing of beauty remain a joy forever?
- (b) Mention any two sources of joy which a thing, of beauty provides to us.
- (c) Explain, “never pass into nothingness.”
- (d) What is meant by ‘bower’?

3. Read the extract given below and answer the questions that follow.

*And such too is the grandeur of the dooms
 We have imagined for the mighty dead;*

*My lovely tales that we have heard or read;
An endless fountain of immortal drink,
Pouring unto us from the heaven's brink*

- (a) Name the poem and the poet of these lines.
- (b) Explain: '*the grandeur of the dooms*'.
- (c) What is the thing of beauty mentioned in these lines'?
- (d) What image does the poet use in these lines?

4. Read the extract given below and answer the questions that follow.

Spite of despondence, of the inhuman dearth
Of noble natures, of the gloomy days,
Of all the unhealthy and o'er-darkened ways
Made for our searching: yes in spite of all,
Some shape of beauty moves away the pall
From our dark spirits.

- (a) Which evil things do we possess and suffer from?
- (b) Why are we despondent?
- (c) What removes "*the pall from our dark spirits*"?
- (d) Explain, "*the inhuman dearth of noble natures.*"

5. Do we experience things of beauty only for short moments or do they make a lasting impression on us?

6. What is the message of the poem 'A Thing of Beauty'?

7. Name the beauties of nature that are constant source of joy and happiness to man.

8. What images does the poet use to describe the beautiful bounty of the Earth?

9. What makes human beings love life in spite of troubles and sufferings?

10. What does Keats consider an endless fountain of immortal drink and why does he call its drink immortal?

ARMY PUBLIC SCHOOL
CLASS – XII

ADVERTISEMENT and CLASSIFIED - ASSIGNMENT

1. You have a three bedroom flat in Dwarka, which you want to let out on rent. Draft an advertisement in not more than 50 words to be published in 'The Times of India', under classified columns. Contact 2758902.
2. You are General Manager, Hotel Dosa, Gurgaon. You need a lady Front Office Assistant with sound knowledge of computers. She must be a graduate and good in communication skills with pleasing manners. Draft an advertisement in not more than 50 words to be published in Gurgaon Times.
3. CPR Senior Secondary School, Meerut is looking for a receptionist for the school. Draft an advertisement in not more than 50 words to be published in classified columns of 'Hindustan Times'. You are Romola Vij, Principal of the school.
4. You are Mohan/Mohini, General Manager of PK Industries, Hyderabad. You need an Accountant your company. Draft, in not more than 50 words, an advertisement to be published in 'The Hindu' classified columns.
5. You are Ratan/Rani, General Manager of Hotel Green Park, Lucknow. You need a receptionist for your hotel. Draft an advertisement in not more than 50 words to be published in 'Hindustan Time Lucknow', calling for applications.

6. Write an advertisement in not more than 50 words for the Lost and Found column of the daily 'National Herald', Lucknow stating the loss of your wallet containing a DD for Rs. 32500 and some cash, while traveling by bus from Hazratganj to Neralia Nagar in Lucknow. You are Raman/Roopa, 22 A Hazratganj, Lucknow.
7. You want to rent out your newly constructed flat in the heart of the city. Draft an advertisement in more than 50 words to be published in 'The Deccan Herald', Bengaluru under classified column Give all the necessary details. You are Mohan/Mahima of Jayanagar, Bengaluru.
8. You are General Manager of Ivory Software Solutions, Agra Cantt Agra. You need a software engineer for your organization. Draft an advertisement in not more than 50 words to be published in 'The Times of India' under the classified columns.
9. You are General Manager of EVL company which requires Posh bungalows on company base, as guest houses. Draft an advertisement in not more than 50 words under classified columns to be published in 'The New India Express'.
10. Aspire India Pvt. Ltd. is starting a new branch office in Noida. The company decides to publish an advertisement in 'The Times of India' regarding walk-in interviews for many posts. Draft an advertisement in not more than 50 words giving necessary details.
11. You are an electrical engineer with 5 years of experience looking for a job near Mumbai. Write an advertisement for the classified in about 50 words.
12. You plan to sell your bike. Draft a suitable advertisement in not more than 50 words to be inserted in the classified columns of a local daily, giving all necessary details of the bike. You are Shaan/Shamita, 55, Malviya Nagar, Pune - 40.
13. You are Deepak/ Deepika of 110, Gandhi Marg, Hyderabad and wish to let out a portion of your newly constructed flat. Draft an advertisement in not more than 50 words for publication in the 'To Let' column of 'The Hindu', Hyderabad giving all necessary details.
14. Poonam has to start her Yoga Centre for school children at her residence, 234, Khaknal. Draft an advertisement about it, to be published in a local daily giving all relevant details.
15. Your neighbour had been to the market where her 5 year old son was lost. Write an advertisement for the newspaper in about 50 words describing the child.
16. You are the proprietor of Raj Travels and have organized a 15 day tour of Europe for Rs.35,000 inclusive of two meals a day. Draft an advertisement for a national daily to draw people to it.
17. You have lost your pet dog. Draft an advertisement by giving necessary details about the pet to be published in the newspaper in the 'Lost and Found' column.
18. You own an independent house in D-Block, South City, Gurgaon. You are interested in disposing it off, as you are going to settle abroad. Draft an advertisement in not more than 50 words to be published in 'Gurgaon Times', giving all the necessary details.
19. The firm Bhatia & Bhatia, Industrial Area, Bangalore wants two engineers for their Chennai office. Draft an advertisement for the 'Situation Vacant' column of a local newspaper giving all the necessary details. Do not exceed 50 words
20. You are a commerce graduate with 8 years of experience of keeping accounts. You want a job in MNC/ Corporate House. As Anil Verma of 257, Moti Nagar, New Delhi, prepare an advertisement.

ARMY PUBLIC SCHOOL
CLASS – XII
ASSIGNMENT – GOING PLACES

Read the following questions and answer them in brief-

1. Why did Sophie like her brother Geoff more than any other person?
2. Did Geoff keep his promise to Sophie? How do you know?
3. Why didn't Sophie want Jansie to know about her story with Danny?
4. What did Sophie imagine about her meeting with Danny Casey?
5. Who was Danny Casey? Which country did he play for? What made him so popular?
6. How did Sophie's father react when Geoff told him about her meeting with Danny Casey? Does her father believe her story?

Answer the questions that follow in detail -

1. Of Jansie is just as old as Sophie but she is very different from her. Bring out the contrast between the two friends, citing relevant instances from the story, 'Going places'.
2. Justify the title of the story 'Going Places'.
3. How would you describe the character and temperament of Sophie's father?
4. Attempt a character sketch of Sophie as a woman who lives in her dreams.

ARMY PUBLIC SCHOOL
CLASS – XII
ASSIGNMENT – LOST SPRING

Answer the following questions-

1. Why had the ragpickers come to live in Seemapuri?
2. How is Mukesh different from the other bangle makers of Firozabad?
3. In spite of despair and disease pervading the lives of the slum children, they are not devoid of hope. How far do you agree?
4. Why does the author say that the bangle makers are caught in a vicious web?
5. Is Saheb happy working at the tea stall? How do you know?
6. Why did the author realise that her advice to Saheb was 'hollow'?
7. Why should there be a hard time for Saheb to believe the meaning of his name?
8. How is Mekesh's attitude different from that of Saheb, both two sides of the same coin?
9. The bangle makers of Firozabad make beautiful bangles and make everyone happy but they live and die in squalor. Elaborate.
10. Give a brief account of life and activities of the people like Saheb-e-Alam settled in Seemapuri.

ARMY PUBLIC SCHOOL
CLASS – XII
ASSIGNMENT – NOTICE WRITING

1. You are Reema/Riteish, the secretary of M.B High School, Mumbai. You have been asked to inform students of class IX and XII about an Inter School Dramatics Competition. Draft a notice for the students' Notice board with all the required details in not more than 50 words. Put the notice in a box.
2. You are Supriya / Suraj of DAV Public School, Nerul. As the Student Coordinator of the Green Drive initiated by your School to mark the occasion of the World Wildlife Day on 3rd March, draft a notice urging the students to preserve the forests and wildlife.
3. You are Siya, the head girl of KPS international school. Your school is soon going to publish the annual magazine next month. Write a notice for your school notice board and invite students to submit write-ups.

4. You are Rahul Saxena, head boy of Alexandria convent school. Your school is going to organize an inter-school dance competition. Write a notice for your school notice board and invite names of all the interested students.
5. You are Suresh Pandey, Secretary of K.A. Residents' Welfare Society, Indirapuram. Write a notice requesting the members of the society to attend a meeting to discuss the problem of R.O water supply and D.G power back-up of your society. K.A. RESIDENTS' WELFARE SOCIETY, INDIRAPURAM NOTICE September 10, 2010 URGENT MEETING! The residents of K.A Residents' Welfare Society, Indirapuram are informed that an urgent meeting of the Society will be held on September 20, 2010 at 9.30 a.m. in the RWA office, H-block. All the members are requested to attend it. Agenda: 1. The problem of R.O. water supply. 2. The problem of poor D.G power back-up in the society Sign. (SURESH PANDAY) Secretary Q: Your school is organizing a Blood Donation Camp in association with the Red Cross Society of India. Write a notice giving essential details about the same. Sign yourself as the Principal of the school. (Word limit – 50 words)
6. Very soon your school is going to be a centre for CBSE examinations. You have seen that during lunch break students of junior classes keep going around the examination rooms and make all kinds of noises. You are Navtej / Navita, Head Boy / Head Girl, Akash Public School, Ajmer. Write a notice in about 50 words warning such students not to go near the examination rooms. (Board 2015)
7. The Sports Club of Bishop Cotton School, Simla, is planning to organize a hiking-trekking expedition in Nepal. Invent necessary details and draft the notice about the expedition for the school notice board in not more than 50 words. You are John / Joanna, the Secretary of Sports Club.
8. The Physical Department of Kendriya Vidhyalaya, Tezpur, is organizing a Summer Camp for training students in hockey and basketball. Invent necessary details and draft a notice in about 50 words. You are Ali / Aliya, the Sports Coordinator.
9. NIE is organising an Inter School Debate at the PSBB Sr. Sec. School, Chennai on 14 Feb. 20XX at 10 a.m. The topic is 'Caring and Sharing—a global concern'. Two students can participate from each school. Being the NIE coordinator of your school, put up a notice inviting names of debaters for participation. 8. As the Head Boy/Head Girl of your school you are organising a Career Counselling Session for XI and XII Std. students of your school. Write a notice giving details of it to be displayed on your school notice board. (Word limit: 50 words)
10. You are the Secretary of your School Literary Association. Write a notice for your school notice board, giving details of the inauguration of the Literary

Association activities. You are ABC of Queen Victoria Senior Secondary School, Nagpur. (Word limit: 50 words).

11. You are the Editor of your school magazine. Draft a notice for your school notice board inviting articles, sketches, etc. from the students for your school magazine. Sign as XYZ of ABT Senior Secondary School, Hyderabad. (Word limit: 50 words)

12. You are Amit/Amrita, Head Boy/Head Girl of your school (Zenith Public School). Write a notice for your school notice board calling for entries from desirous students for Britannia Quiz Contest— Preliminary round to be held at your school

13. You are Subodh/Smriti, Head Boy/Head Girl of your school. (Ascot Public School, Ranchi). Write a notice for your school notice board inviting students to participate in an inter-house Science Quiz to be held at your school.

14. Commerce Association IBM School Faridabad is inviting Professor P.C. Seth to speak on 'Tax Reforms-the Need of the Hour'. As the Secretary of the Commerce Association, write a notice inviting the students to attend the lecture. Give details.

15. You are Sahil, Cultural Secretary of Tagore Model School, Cuttack. You have organised a Charity Show in your school in aid of the drought affected villagers of Kalahandi. Write out a notice to be displayed on the school notice board informing the students ; about the show and seeking their cooperation for the success of the charity show.

**ARMY PUBLIC SCHOOL
CLASS – XII
ASSIGNMENT – THE ENEMY**

Answer the following questions briefly-

1. Why did the General not order immediate arrest of Dr Sadao who had sheltered a Whiteman?
2. What made a cool surgeon like Sadao speak sharply to his wife and what was her reaction?
3. How did Dr Sadao ensure that the American sailor left his house but he himself remained safe and secure?
4. Why did the messenger come to Dr Sadao? What did Hana think about it? How did Hana help Dr Sadao?
5. How do servants react to the decision of Dr.Sadao to keep the American prisoner of war in their house?
6. Why did Dr.Sadao feel that the General was in the palm of his hand?

Answer the following questions in detail -

1. Do you think Dr Sadao's final decision was the best possible one in the circumstances? Why/Why not? Explain with reference to the story, 'The Enemy'.
2. Dr Sadao was compelled by his duty as a doctor to help the enemy soldier. What made Hana, his wife, sympathetic to him in the face of open defiance from the domestic staff?
3. What conflicting ideas arise in Dr Sadao's mind after he has brought the wounded American soldier home? How is the conflict resolved?

4. What was the General's plan to get rid of the American prisoner? Was it executed?

What traits of General's character are highlighted in the lesson?

AUNT JENNIFER'S TIGERS

1. Aunt Jennifer's tigers prance across a screen,
Bright topaz denizens of a world of green.
They do not fear the men beneath the tree:
They pace in sleek chivalric certainty.

Questions

- (a) Name the poem and the poet of these lines.
- (b) What are Aunt Jennifer's tigers doing? How do they look like?
- (c) Where do they live? Are they fearless? Give an example.
- (d) How do they pace?

2. Aunt Jennifer's fingers fluttering through her wool Find even the ivory needle hard to pull.

The massive weight of Uncle's wedding band
Sits heavily upon Aunt Jennifer's hand.

Questions

- (a) What were Aunt Jennifer's fingers fluttering through?
- (b) How was she pulling the needle?
- (c) What was lying heavily? Where?
- (d) What was upon Aunt Jennifer's hand? How did it sit there?

3. When Aunt is dead, her terrified hands will lie
Still ringed with ordeals she was mastered by.
The tigers in the panel that she made
Will go on prancing, proud and unafraid.

Questions

- (a) Why are Aunt Jennifer's hands called 'terrified'?
- (b) What are they still ringed with?
- (c) Where did she make the tigers?
- (d) What will happen to her tigers after her death?

Q1. How do 'denizens' and 'chivalric' add to our understanding of the tiger's attitudes?

Q2. Why do you think Aunt Jennifer's hands are 'fluttering through her wool' in the second stanza? Why is she finding the needle so hard to pull?

Q3. What is suggested by the image 'massive weight of uncle's wedding band'?

Q4. Of what or whom is Aunt Jennifer terrified in the third stanza?

Q5. What are the 'ordeals' Aunt Jennifer is surrounded by? Why is it significant that the poet uses the word 'ringed'? What are the different meanings of 'ringed' in the poem?

Q6. Why do you think Aunt Jennifer created animals that are so different from her own character? What might the poet be suggesting, through this difference?

Q7. Do you sympathise with Aunt Jennifer? What is the attitude of the speaker towards Aunt Jennifer?

Q8. What do you learn about Aunt Jennifer's tigers on reading the poem?

Q9. How has Aunt Jennifer created her tigers? What traits of tigers do they reveal!

Q10. What difficulty does Aunt Jennifer face while making her tigers and why?

Q11. What is the weight that lies heavy on Aunt Jennifer's hand? How is it associated with her husband?

Q12. How will Aunt Jennifer's hands look when she is dead?

Q13. What will happen to Aunt Jennifer's tigers when she is dead?

Q14. How are Aunt Jennifer's tigers different from her?

Q15. What are the difficulties that Aunt Jennifer faced in her life?

EVANS TRIES O'LEVEL

Short answer type

1. What kind of person was Evans? Why did he want to sit for the O-level German examination?
2. Who was James Roderick Evans? Why was he put in the Oxford Prison?
3. Why did the Governor apply for an examination for Evans?
4. What were the contents of the small suitcase that McLeery carried?
5. How did the Governor react to the two phone calls he received in quick succession?
6. Why did Evans not take off his hat when Jackson ordered him to do so?
7. How does McLeery explain the presence of a small semi-inflated rubber ring? What did it actually contain?
8. What clues did the answer sheet of Evans provide to the Governor?
9. How did Evans outwit the Governor in the end?
10. What had happened to the real Reverend Stuart McLeery?
11. Why did McLeery's expressions change when he was frisked?
12. How did Evans manage to get Stephens out of his cell?
13. What was the intention behind the call from the Examinations Board?
14. How did Stephens feel when he was asked to accompany McLeery out of the prison?
15. How did Evans escape from Detective Carter?
16. When did the Governor realize that the invigilator was fake?

Long answer type

1. What precautions were taken by the prison authorities for the smooth conduct of the examination?
2. How did the negligence of the prison officers prove to be a boon for Evans? Give a character sketch of the Governor of Oxford Prison based on your understanding of the story, 'Evans Tries an O-level'.
3. How was the injured McLeery able to befool the prison officers?
4. What purpose did the question paper and the correction slip serve? How did they help both the criminals and the Governor?
5. Did the Governor and his staff finally heave a sigh of relief?
6. Reflecting on the story, what could the Governor have done to securely bring back Evans to prison when he caught him at the Golden Lion? Does that final act of foolishness really prove that "he was just another good-for-a-giggle, gullible governor, that was all". What did you feel about Evans' having the last laugh?
7. Do you think that the Governor was really intelligent? Support your answer with instances.
8. Why is the Governor called 'good for a giggle Governor'?

FORMAL LETTERS

1. You are Naresh/Neetu. Recently, you came across a newspaper report on the burning of a young woman as her parents could not meet the dowry demands. You feel that even after 60 years of independence we have not really progressed as a nation. Write a letter to the editor of a local newspaper expressing your views and also giving suggestions to improve the status of women in Indian Society.
2. You are Satish/Sonali, the student prefect incharge of the school library. You have been asked to place an order for children's story books (Ages 10-13 yrs). Write a letter to M.S. Book Depot Ramnagar, Bikaner placing an order for the books. Invent the necessary details.
3. You are Nitin/Natasha a student of Class XII at K.P.N. Public School Faridabad. The student is required to cope with lot of pressure in today's competitive environment. Write a letter to the editor of a national daily highlighting the increasing stress faced by students and suggest ways to combat the same.
4. You are Suresh/Smita. You come across the following advertisement in a national daily. You consider yourself suitable and eligible for the post. Write an application in response to the advertisement. Applications are invited for the post of a Nursery teacher in a reputed school of Delhi. The candidate must have at least 5 year experience of teaching tiny-tots. The applicant must have a pleasant personality. He/she should be creative and innovative. Attractive salary. Interested candidates should apply to The Principal, AKS International, Indirapuram, New Delhi within 10 days with detailed resume.
5. You participated in a Career counselling program organized by Careers India. You had the opportunity of listening to professionals from various fields like food 5 technology, fashion technology, Media management etc. Write a report of the programme for Career Times. You are Alok/Anita.
6. You are Rohit / Reema of 24/17 Karol Bagh, New Delhi-110005. You are interested in doing a short term course in Public Speaking during the summer vacations. Write a letter to the Director, Socrates Academy, East Patel Nagar, New Delhi inquiring about the course. Invent necessary details.
5. Write a letter to the Commissioner of Chennai Corporation, complaining about the poor sanitary conditions and mosquito menace in your locality. You are S. Sundaram,/ Shrishti Swamy of 34, Periyar Road , Chennai -600017
7. You recently bought a steam iron from 'Croma Electronics' Sector 6 Dwarka. A month after its purchase it stopped functioning properly. Write a suitable letter to the store stating your problem and your expectations regarding the future course of action. You are Rohit Seth/ Reena Seth of 8, Subroto Park, New Delhi-110010
8. A report released by the National Crime Records Bureau stated that Delhi is one of the top most crime affected cities in India. Write a letter to the editor on the increasing crime rate in this city .You are Vishu Tanwar/Vaishnavee Tanwar of 300/3, Krishna Park, New Delhi-110056.

9. You are Sudha/Sudhir, President of Residents' welfare association of Neelamber Apartments, Jaipur. You have decided to get the apartments whitewashed with plastic paints. Write a letter to the manager New light Painters and Decorators, Jaipur asking about their services and charges for whitewashing the apartments.

10. You are Aditi/Aditya from 7-S Najafgarh. You are interested in joining Yoga and Meditation centre of your locality as a student. Write a letter to the chairman of the centre asking about various particulars of the admission and other related information.

11. You are incharge of Junior Science Laboratory of ASN Public School, Shalimar Garden. Place an order to SUV laboratory works; Karol Bagh for various apparatus/equipment used in your laboratory.

12. You are Neetu/Neel, Eco Club incharge of S.V.C. school Motibagh, Delhi. Place an order with Green World Nursery, Dayabasti for Nonflowering Ornamental plants.

13. You are Shivani/Shivam, Incharge of Cultural, committee of Jai Deep School, Nehru Vihar. You had placed an order for the supply of several musical instruments for organising annual day, at your school to M/s Gagan Musical Store, Karolbagh, As the dealer did not supply the instruments before the due date you were forced to arrange for the instruments from some other store. Write a letter to the dealer for cancellation of the order placed by you and returning the advance money deposited by you.

14. You are Zeenat/Zeeshan, Manager of VGC firm Sahibabad, Dealing with readymade clothes. You have got letters of enquiry from Vision Costume and Accessories, Vivek Vihar about your products. Write a letter providing necessary information in response to the enquiry.

15. Sheetal restaurant, Sector-8, Rohini wants to know about various types of ice creams supplied by Jai Deep Ice Creams, an outlet of Amul Ice Creams, Pant Nagar. You being the manager of the outlet provide necessary information in response to the enquiry, assuming yourself as Rajni/Rajan.

16. IGNOU, Delhi has started 6-months certificate course in Disaster Management. You are Deepika/Deepak head of Disaster management cell of SDS Public School Bangalore. Write a letter to the Vice-Chancellor IGNOU enquiring about various aspects of the course like fee, criteria of admission etc. as you want your colleagues to join it.

17. You are Ameena/Aman from NSCB hostel, Dehradun. You and your friends are planning a holiday. You come across the following advertisement in a newspaper. Read the advertisement and on the basis of your choice of destination write a letter to the tour operator enquiring about various aspects of the tour.

18. You are Priya/Priyank, 37, Kasturba Marg, Delhi. You have decided to shift your residence to Faridabad and hence, decided to discontinue your

membership of Brain Trust Library, Karol Bagh. Write a letter in 120 to 150 words to the Librarian, requesting him to cancel your membership and refund your security deposit of five thousand rupees, explaining your inability to continue your membership.

19. You are Sooraj / Smita. You came across the following advertisement in a national daily. You consider yourself suitable and eligible for the post.

Write an application in response to the advertisement given below:

Applications are invited for the post of a TGT in a reputed school of Delhi.

The candidate must have at least 05 years experience of teaching . The applicant must have a pleasant personality. He/she should be creative, innovative and computer savvy . Attractive salary. Interested candidates should apply to The Principal, AKS International, Indirapuram, New Delhi within 10 days with a detailed resume.

20. You are Avinash / Archana, resident of 50 Bank Enclave, Delhi. Your city is going to host Commonwealth games in the month of October in which participants from more than 70 nations are expected to participate. You have recently read a report regarding the lack of proper infrastructure and security measures in the city. You are appalled by the report .Write a letter to the Editor of the newspaper in 120 words, expressing your concern and suggesting some measures required to be taken in order to prepare the city for the games.

21. You are Kapil / Kavita, resident of 13 Lajpat nagar, Agra. You came across the following advertisement in a national daily. You consider yourself suitable and eligible for the post. Write an application in response to the advertisement given below:

SITUATION VACANT

Accounts Teacher

Qualification: M.Com

Experience: Minimum 3 years in a reputed school

Preference: Knowledge of Computers and Fluency in English.

Apply to the Principal: BHARATIYA PUBLIC SCHOOL 62, Kamla Nagar, Agra

22. Sheena of C-4, Postal Colony, Thrissur, bought an Usha Lexus automatic iron from IWS. Nandillath, " Round North, Thrissur. Within a week it started giving problems. She writes a letter to the dealer, complaining about the defects and asks them to replace it. Write the letter for her in about 120 words.

23. You are Anuj/Anita living at #912,5th Cross, Malleshwaram, Bangalore. you are very much pained to know about the current state of affairs with regard to corruption and scandals in the Indian political scene. Write a letter to the Editor of 'The Hindu', showing your concern about the falling standards.

24. As a regular commuter by bus from Noida to Delhi, you have been witnessing rash driving by the bus drivers daily, without an exception. Write a letter to the Editor, in not more than 120-150 words, drawing the attention of the General Manager, Delhi Transport Corporation to this problem. You are Priti/Prakash, 15 Udyog Vihar, Noida.

25. You are awaiting your class 12th results. Meanwhile you would like to do a short term course on personality development. Write a letter to the Director, in not more than 120-150 words, Personal Care, Hyderabad, enquiring about the course details. You are Kailash / Kusum of 148, Model Town, Delhi.

26. You are Apoorva, B 120, Malviya Nagar, Chennai. Read the advertisement given below and write a letter in 120-150 words to the advertiser, applying for the job.

INDIAN PHARMACEUTICALS

20 COAST ROAD, BOMBAY

Requires Trainee Medical Representatives

Candidates should be Science or Pharmacy graduates and below 25 years of age. Fluency in English and any one of the regional languages is essential. Attractive stipend with handsome working allowances will be offered during training period. After successful completion of the training, the candidates will be appointed on regular basis. Please apply with complete resume and a passport size photograph at the above address.

27. You are Apoorva, Physical Education Teacher of Wisdom Public School, New Delhi. Write a letter to the Sales Manager of Bharat Sports Limited, New Delhi placing an order for sports articles and accessories that you wish to purchase for your school. Also ask for the discount permissible on the purchase. (120-150 words)

INDIGO

Short answer type

1. Why did Gandhiji feel that taking the Champaran case to court was useless?

2. 2. How did the Champaran peasants react when they heard that a Mahatma had come to help them?
3. 3. What made the Lieutenant Governor drop the case against Gandhiji?
4. Why did Gandhiji oppose when his friend Andrews offered to stay in Champaran and help the peasants?
5. Why do you think Gandhi considered the Champaran episode to be a turning point in his life?
6. Why did Gandhiji decide to go to Muzaffarpur before going to Champaran?
7. "The battle of Champaran is won!." What led Gandhiji to make this remark?
8. Why did Gandhi agree to the planters' offer of a 25% refund to the farmers?
9. How was Gandhi able to influence the lawyers?
10. List the places that Gandhi visited between his first meeting with Shukla and his arrival at Champaran
11. The events in this part of the text illustrate Gandhi's method of working. Can you identify some instances of this method and link them to his ideas of Satyagraha and non-violence?
12. "What was the attitude of the average Indian in smaller localities towards advocates of 'home rule'?"

Long answer type

1. Why is the Champaran episode considered to be the beginning of the Indian struggle for independence?
2. Gandhiji's loyalty was not a loyalty to abstractions; it was a loyalty to living human beings. Why did Gandhiji continue his stay in Champaran even after indigo sharecropping disappeared?
3. Describe how, according to Louis Fischer, Gandhiji succeeded in his Champaran campaign.
4. Why did Gandhiji agree to a settlement of 25% refund to the farmers? How did it influence the peasant-landlord relationship in Champaran?
5. Give an account of Gandhiji's efforts to secure justice for the poor indigo sharecroppers of Champaran.
6. The Champaran episode was a turning point in Gandhiji's life. Elucidate.
7. "Freedom from fear is more important than legal justice for the poor". Comment.
8. "The real relief for them is to be free from fear", remarked Gandhi. What do you think, was "the beginning of their liberation from the fear of the British" ?
9. 'Civil disobedience had triumphed, the first time in modern India.' Relate the events during Gandhi's stay in Champaran that led to the triumph.

10. "Indigo sharecropping disappeared." Which factors do you think, helped to achieve freedom for the fear-stricken peasants of Champaran?

INVITATION & REPLIES

1. Suman/Suresh has cleared the Pre-Medical Pre-Dental entrance examination. The family is elated at the achievement and they decide to have a get-together for all friends. Draft an informal invitation for the get-together.
2. You are celebrating the 65th Birthday of your grandmother at your residence 31 Oakwood Apartments, Vikaspuri, New Delhi. It promises to be a grand event. Draft an invitation to be sent to your relative Mr. & Mrs Rahi Raizada. You Are Sasha Sood/Samir Sood. Choose a suitable format.
3. On behalf of the Principal of St, Marks School, Jaipur draft an invitation for the school Annual Athletics meet to be held in your school .
4. Invite the HOD (English Department), Ramjas College , Sitapur to judge the Inter – House debate competition in your school. Sign yourself as Radha Nair, Principal, New Era Public School.
5. Your son Adi will be 5 years old on 2 December . Write an invitation to celebrate his Birthday at Mickey Mouse Resorts. You are Atul- Vani Dua of Saharanpur.
6. Your sister Aradhana is getting married on 20 December. On behalf of your parents draft a suitable invitation for friends and relatives. You are Arun Narang of Ganpati Colony, Saharanpur.
7. You are celebrating your grandparents' Golden Anniversary at your residence 50, New Look apartments, G P Road, Gurugram. Send an invitation to your uncle for the same.
8. As the cultural secretary of Dreamland Public school, Jaipur, draft an invitation to be sent to renowned interior designer Ms. Rehana Sheikh to judge the dry floral arrangement competition to be held in your school .

1. You are Esha Das , HOD English of Shivaji College , Mumbai. Send a reply to the principal of J. J. Public School for the invitation received to judge the inter school Dramatics completion.

2. Send a reply to accept the invitation received for the engagement ceremony of your friend's son . You are Neeraj Sharma .

3. You are James Grey. You and your wife have received an invitation from Mrs. and Mr. Subash Singh for the 5th birthday celebration of their son Rohan. Send a reply declining the invitation.

THE LAST LESSON

Short answer type

1. What was Franz expected to be prepared with for school that day?
2. What did Franz notice that was unusual about the school that day?
- 3.
4. What had been put up on the bulletin-board?
5. What changes did the order from Berlin cause in school that day?
6. How did Franz's feelings about M. Hamel and school change?
7. What tempted Franz to stay away from school?

8. What was unusual about M Hamel's dress on his last day in the school?
9. "What a thunderclap these words were to me!" What were the words that shocked and surprised the narrator?
10. Why were the elders of the village sitting in the classroom?
11. Why does M Hamel reproach himself for his students, unsatisfactory progress in Studies?
12. What words did M Hamel write on the blackboard before dismissing the last class? What did they mean?
13. What announcement did M Hamel make? What was the impact of this on Franz?
14. How was the scene in the school in the morning of the last lesson different from that on other days?
15. Who was Wachter? What is the significance of his comment You'll get to your school in plenty of time?

Long answer type

1. What changes did the narrator find in the school when the order from Berlin came?
2. The people? in this story suddenly realise how precious their language is to them. What shows you this? Why does this happen?
3. Franz thinks, "Will they make them sing in German, even the pigeons?" What could this mean?

STUDY MATERIAL
ON

HOTS

Subject: Accountancy

**CLASS – XII(As per NCERT
Book)**

Part –A

**Accountancy Not – for Profit
organization and partnership
Accounts**

CHAPTER:1

ACCOUNTING FOR NOT FOR PROFIT ORGANISATION

Q.1 Give to main sources of income of a 'Not for profit organisation'.

Q.2 State any two characteristics of Receipt and Payment Account.

Q.3 How would you account for 'subscription due to be received' in the current year in the books of a non trading organisation?

Q.4 How would you account for 'subscription received in advance' in the current year in the books of a non trading organisation?

Q.5 What is meant by fund based accounting?

Q.6 Tournament fund appears in the books Rs. 15,000 and expenses on tournament during the year were Rs. 18000. How will you show this in format while preparing financial statement of a not-for-profit organisation?

Q.7 As per Receipt and Payments account for the year ended on March 31, 2008, the subscription received were Rs. 2,50,000. Addition information given is as follows:-

(i) Subscriptions outstanding on 01-04-2007 Rs. 50,000.

(ii) Subscription outstanding on 31-03-2008 Rs. 35,000.

(iii) Subscription Received in advance as on 31-03-2008 Rs. 30000.

Ascertain the amount of income from subscription for the year 2007-08.

Q.8 From the following extracts of Receipts and Payments Account and the additional information given below, compute the amount of income from subscriptions and show us how they would appear in the Income and Expenditure Account for the year ending March 31, 2007 and the Balance sheet on that date:-

**Receipts and Payments A/C
For the year ending March 31, 2007**

Receipts	Rs.	Payments	Rs.
Subscription :-			
2005-06	-		
7000			
2006-07	-		
30000	42000		
2007-08	-		
5000			

Additional information:-

(iv) Subscription outstanding on March 31, 2006 Rs. 8500.

(v) Total subscriptions outstanding on March 31, 2007 Rs. 18,500.

(vi) Subscriptions received in advance as on March 31, 2006 Rs. 4000.

Q. 9 From the following particulars of a club, calculate the amount of salaries to be shown in Income and expenditure account for the year ended 31 March, 2008:-

Total salaries paid during the year 2007-08 Rs. 87,000

Outstanding salaries on 01-04-2007 Rs. 17,000

Prepaid salaries on 01-04-2007 Rs. 19,000

Outstanding salaries on 31-03-2008 Rs. 32,000

Prepaid salaries on 31-03-2008 Rs 20,000

Q.10 Calculate the amount to be debited to Income and Expenditure account under the heading sports items for the year 2006-07 in respect of the Osmosis club:-

Stock of sports items on 01-04-2006	Rs. 44,700
Stock of sports items on 31-03-2007	Rs. 24,500
Paid for sports items during the year	Rs. 97,900

Creditors for supplies of sports items 31-03-2007 Rs. 26,500.

Q.11 Show the following information in the Balance Sheet of the Cosmos club as on 31st March 2007:-

Particulars	Dr (Rs)	Cr (Rs)
Tournament Fund	-	1,50,000
Tournament Fund Investment	1,50,000	-
Income From Tournament Fund Investment	-	18,000
Tournament Expenses	12,000	-

Additional Information:-

Interest accrued on Tournament Fund Investment Rs. 6000.

Q.12 Calculate the amount medicines to be debited in the Income and Expenditure Account of a Hospital on the basis of the following information:-

	01-04-2006 Rs.	31-03-2007 Rs.
Stock of Medicines	90,000	1,24,000
Creditors for Medicines	2,40,000	2,04,000

Amount paid for medicines during the year was Rs. 6,79,000.

Q.13 Distinguish between Receipts and Payments A/C and Income and expenditure A/C.

CHAPTER:2

ACCOUNTING FOR PARTNERSHIP FIRMS: BASIC CONCEPTS

- Q.1 State the conditions under which capital balances may change under the system of a Fixed Capital Account.
- Q.2 A is partner in a firm. His capital as on Jan 01, 2007 was Rs. 60,000. He introduced additional capital of Rs. 20000 on Oct 01 2007. Calculate interest on A's capital @ 9% p.a.
- Q.3 Alka, Barkha and Charu are partners in a firm having no partnership agreement. Alka, Barkha and Charu contributed Rs. 20,000, Rs. 30,000 and Rs. 1,00,000 respectively. Alka and Barkha desire that the profit should be divided in the ratio of capital contribution. Charu does not agree to this. How will you settle the dispute.
- Q.4 A and B are partners in a firm without a partnership deed. A is an active partner and claims a salary of Rs. 18,000 per month. State with reason whether the claim is valid or not.
- Q.5 Chandar and Suman are partners in a firm without a partnership deed. Chandar's capital is Rs. 10,000 and Suman's capital is Rs. 14,000. Chandar has advanced a loan of Rs. 5000 and claim interest @ 12% p.a. State whether his claim is valid or not.
- Q.6 R, S, and T entered into a partnership of manufacturing and distributing educational CD's on April 01, 2006. R looked after the business development, S content development and T financed the project. At the end of the year (31-03-2007) T wanted an interest of 12% on the capital employed by him. The other partners were not inclined to this. How would you resolve this within the ambit of the Indian Partnership Act, 1932?
- Q.7 A, B and C are partners in a firm. A withdrew Rs. 1000 in the beginning of each month of the year. Calculate interest on A's drawing @ 6% p.a.
- Q.8 A, B and C are partners in a firm, B withdrew Rs. 800 at the end of each month of the year. Calculate interest on B's drawings @ 6% p.a.
- Q.9 A, B and C are partners in a firm. They have omitted interest on capital @ 10 % p.a. for three years ended 31st march 2007. Their fixed capitals on which interest was to be calculated through –out were
- | | |
|---|--------------|
| A | Rs. 1,00,000 |
| B | Rs. 80,000 |
| C | Rs. 70,000 |

Give the necessary Journal entry with working notes.

- Q.10 X, Y, and Z are partners sharing profits and losses in the ratio of 3:2:1. After the final accounts have been prepared it was discovered that interest on drawings @ 5 % had not been taken into consideration. The drawings of the partner were X Rs. 15000, Y Rs. 12,600, Z Rs. 12,000. Give the necessary adjusting Journal entry.
- Q.11 A, B and C are partners sharing profits and losses in the ratio of 3:2:1. Their fixed capitals are Rs. 1,50,000, Rs. 1,00,000 and Rs. 80,000 respectively. Profit for the year after providing interest on capital was Rs. 60,000, which was wrongly transferred to partners equally. After distribution of profit it was found that interest

on capital provided to them @ 10% instead of 12% . Pass necessary adjustment entry.

Show your working clearly.

Q.12 Ravi and Mohan were partner in a firm sharing profits in the ratio of 7:5. Their respective fixed capitals were Ravi Rs. 10,00,000 and Mohan Rs. 7,00,000. The partnership deed provided for the following:-

(i) Interest on capital @ 12% p.a.

(ii) Ravi's salary Rs. 6000 per month and Mohan's salary Rs. 60000 per year.

The profit for the year ended 31-03-2007 was Rs. 5,04,000 which was distributed equally without providing for the above. Pass an adjustment Entry.

Q.13 Distinguish between fixed capital method and fluctuating capital method.

Q.14 A, B and C were partners in a firm having capitals of Rs. 60,000, Rs. 60,000 and Rs. 80,000 respectively. Their current account balances were A- Rs. 10,000, B- Rs. 5000 and C- Rs. 2000 (Dr.). According to the partnership deed the partners were entitled to an interest on capital @ 5% p.a. C being the working partner was also entitled to a salary of Rs. 6,000 p. a. The profits were to be divided as follows:

(i) The first Rs. 20,000 in proportion to their capitals.

(ii) Next Rs. 30,000 in the ratio of 5:3:2.

(iii) Remaining profits to be shared equally.

During the year the firm made a profit of Rs. 1,56,000 before charging any of the above items.

Prepare the profit and loss appropriation on A/C.

Q.15 A and B are partners sharing profits in proportion of 3:2 with capitals of Rs. 40,000 and Rs. 30,000 respectively. Interest on capital is agreed at 5 % p.a. B is to be allowed an annual salary of Rs. 3000 which has not been withdrawn. During 2001 the profits for the year prior to calculation of interest on capital but after charging B's salary amounted to Rs. 12,000. A provision of 5% of this amount is to be made in respect of commission to the manager.

Prepare profit and loss appropriation account showing the allocation of profits.

CHAPTER:3

RECONSTITUTION OF PARTNERSHIP

ADMISSION OF A PARTNER

- Q.1 On what occasions does the need for valuation of goodwill arise?
- Q.2 Why is it necessary to revalue assets and reassess liabilities at the time of admission of new partner?
- Q.3 What is meant by sacrificing ratio?
- Q.4 State two occasions when sacrificing ratio may be applied.
- Q.5 A business has earned average profit of Rs. 60,000 during the last few years. The assets of the business are Rs. 5,40,000 and its external liabilities are Rs. 80,000. The normal rate of return is 10%. Calculate the value of goodwill on the basis of capitalisation of super profits.
- Q.6 The capital of a firm of Arpit and Prajwal is Rs. 10,00,000. The market rate of return is 15% and the goodwill of the firm has been valued Rs. 1,80,000 at two years purchase of super profits. Find the average profits of the firm.
- Q.7 The average profits for last 5 years of a firm are Rs. 20,000 and goodwill has been worked out Rs. 24,000 calculated at 3 years purchase of super profits. Calculate the amount of capital employed assuming the normal rate of interest is 8 %.
- Q.8 Rahul and Sahil are partners sharing profits together in the ratio of 4:3. They admit Kamal as a new partner. Rahul surrenders $\frac{1}{4}$ th of his share and Sahil surrenders $\frac{1}{3}$ rd of his share in favour of Kamal. Calculate the new profit sharing ratio.
- Q.9 Ajay and Naveen are partners sharing profits in the ratio of 5:3. Surinder is admitted in to the firm for $\frac{1}{4}$ th share in the profit which he acquires from Ajay and Naveen in the ratio of 2:1. Calculate the new profit sharing ratio.

Q.10 A and B were partners sharing profits in the ratio of 3:2. A surrenders $\frac{1}{6}$ th of his share and B surrenders $\frac{1}{4}$ th of his share in favour of C, a new partner. What is the new ratio and the sacrificing ratio.

Q.11 Aarti and Bharti are partners sharing profits in the ratio of 5:3. They admit Shital for $\frac{1}{4}$ th share and agree to share between them in the ratio of 2:1 in future. Calculate new and sacrificing ratio.

Q.12 X and Y divide profits and losses in the ratio of 3:2. Z is admitted in the firm as a new partner with $\frac{1}{6}$ th share, which he acquires from X and Y in the ratio of 1:1. Calculate the new profit sharing ratio of all partners.

Q.13 Rakhi and Parul are partners sharing profits in the ratio of 3:1. Neha is admitted as a partner. The new profit sharing ratio among Rakhi, Parul and Neha is 2:3:2. Find out the sacrificing ratio.

Q.14 X and Y are partners sharing profits in the ratio of 5:4. They admit Z in the firm for $\frac{1}{3}$ rd profit, which he takes $\frac{2}{9}$ th from X and $\frac{1}{9}$ th from Y and brings Rs. 1500 as premium. Pass the necessary Journal entries on Z's admission.

Q.15 Ranzeet and Priya are two partners sharing profits in the ratio of 3:2. They admit Nilu as a partner, who pays Rs. 60,000 as capital. The new ratio is fixed as 3:1:1. The value of goodwill of the firm was determined at Rs. 50,000. Show journal entries if Nilu brings goodwill for her share in cash.

Q.16 A and B are partners sharing profits equally. They admit C into partnership, C paying only Rs. 1000 for premium out of his share of premium of Rs. 1800 for $\frac{1}{4}$ th share of profit. Goodwill account appears in the books at Rs. 6000. All the partners have decided that goodwill should not appear in the new firms books.

Q.17 A and B are partners sharing profits in the ratio of 3:2. Their books showed goodwill at Rs. 2000. C is admitted with $\frac{1}{4}$ th share of profits and brings Rs. 10,000 as his capital but is not able to bring in cash goodwill Rs. 3000. Give necessary Journal entries.

Q.18 Piyush and Deepika are partners sharing in the ratio of 7:3. they admit Seema as a new partner. The new ratio being 5:3:2. Pass journal entries.

Q.19 A and B are partners with capital of Rs. 26,000 and Rs. 22,000 respectively. They admit C as partner with $\frac{1}{4}$ th share in the profits of the firm. C brings Rs. 26,000 as his share of capital. Give journal entry to record goodwill on C's admission.

Q.20 A and B are partners sharing profits in the ratio of 3:2. They admit C into partnership for $\frac{1}{4}$ th share. C is unable to bring his share of goodwill in cash. The goodwill of the firm is valued at Rs. 21,000. give journal entry for the treatment of goodwill on C's admission.

Q.21 A and B are partners with capitals of Rs. 13,000 and Rs. 9000 respectively. They admit C as a partner with $\frac{1}{5}$ th share in the profits of the firm. C brings Rs. 8000 as his capital. Give journal entries to record goodwill.

Q.22 A, B and C were partners in the ratio of 5:4:1. On 31st Dec. 2006 their balance sheet showed a reserve fund of Rs. 65,000, P&L A/C (Loss) of Rs. 45,000. On 1st January, 2007, the partners decided to change their profit sharing ratio to 9:6:5. For this purpose goodwill was valued at Rs. 1,50,000.

The partners do not want to distribute reserves and losses and also do not want to record goodwill.

You are required to pass single journal entry for the above.

Q.23 A and B were partners in the ratio of 3:2. They admit C for $\frac{3}{13}$ th share. New profit ratio after C's admission will be 5:5:3. C brought some assets in the form of his capital and for the share of his goodwill.

Following were the assets:

Assets	Rs.
Stock	2,44,000
Building	2,40,000
Plant and Machinery	1,40,000

At the time of admission of C goodwill of the firm was valued at Rs. 12,48,000.

Pass necessary journal entries.

Q.24 X, Y and Z are sharing profits and losses in the ratio of 5:3:2. They decide to share future profits and losses in the ratio of 2:3:5 with effect from 1st April, 2002. They also decide to record the effect of the reserves without affecting their book figures, by passing a single adjusting entry.

	Book Figure
General Reserve	Rs. 40,000
Profit & loss A/C (Cr)	Rs. 10,000
Advertisement Suspense A/C(Dr)	Rs. 20,000

Pass the necessary single adjusting entry.

CHAPTER:4

RECONSTITUTION OF A PARTNERSHIP FIRM

RETIREMENT /DEATH OF A PARTNER

- Q.1 Distinguish between Sacrificing Ratio and Gaining Ratio.
- Q.2 Kamal, Kishore and Kunal are partners in a firm sharing profits equally. Kishore retires from the firm. Kamal and Kunal decide to share the profits in future in the ratio 4:3. Calculate the Gaining Ratio.
- Q.3 P, Q and R are partners sharing profits in the ratio of 7:2:1. P retires and the new profit sharing ratio between Q and R is 2:1. State the Gaining Ratio.
- Q.4 A, B and C are partners in a firm sharing profits in the ration of 2:2:1. B retires and his share is acquired by A and C equally. Calculate new profit sharing ratio of A and C.
- Q.5 X, Y and Z are partners sharing profits in the ratio of $\frac{4}{9}$, $\frac{1}{3}$ and $\frac{2}{9}$. X retires and surrenders $\frac{2}{3}$ rd of his share in favour of Y and remaining in favour of Z. Calculate new profit sharing ratio and gaining ratio.

- Q.6 X, Y and Z have been sharing profits and losses in the ratio of 3:2:1. Z retires. His share is taken over by X and Y in the ratio of 2:1. Calculate the new profit sharing ratio.
- Q.7 P, Q and R were partners in a firm sharing profits in 4:5:6 ratio. On 28-02-2008 Q retired and his share of profits was taken over by P and R in 1:2 ratio. Calculate the new profit sharing ratio of P and R.
- Q.8 Mayank, Harshit and Rohit were partners in a firm sharing profits in the ratio of 5:3:2. Harshit retired and goodwill is valued at Rs 60000. Mayank and Rohit decided to share future profits in the ratio 2:3. Pass necessary journal entry for treatment of goodwill.
- Q.9 Ramesh, Naresh and Suresh were partners in a firm sharing profits in the ratio of 5:3:2. Naresh retired and the new profit sharing ratio between Ramesh and Suresh was 2:3. On Naresh retirement the goodwill of the firm was valued at Rs. 120000. Pass necessary journal entry for the treat.
- Q.10 L, M and O were partners in a firm sharing profits in the ratio of 1:3:2. L retired and the new profit sharing ratio between M and O was 1:2. On L's retirement the goodwill of the firm was valued Rs. 120000. Pass necessary journal entry for the treatment of goodwill.
- Q.11 State the journal entry for treatment of deceased partners share of profit for his life period in the year of death.
- Q.12 X, Y and Z were partners in a firm sharing profits and losses in the ratio of 3:2:1. The profit of the firm for the year ended 31st March, 2007 was Rs. 3,00,000. Y dies on 1st July 2007. Calculate Y's share of profit up to date of death assuming that profits in the year 2007- 2008 have been accrued on the same scale as in the year 2006-07 and pass necessary journal entry.
- Q.13 A, B and C were partners in a firm sharing profits in 3:2:1 ratio. The firm closes its books on 31st March every year. B died on 12-06-2007. On B's death the goodwill of the firm was valued at Rs. 60000. On B's death his share in the profit of the firm till the time of his death was to be calculated on the basis of previous years which was Rs.150000. Calculate B's share in the profit of the firm. Pass necessary journal entries for the treatment of goodwill and B's share of profit at the time of his death.
- Q.14 A, B and C were partners in a firm sharing profits in the ratio of 2:2:1. C dies on 31st July, 2007. Sales during the previous year upto 31st march, 2007 were Rs. 6,00,000 and profits were Rs. 150000. Sales for the current year upto 31st July were Rs. 250000. Calculate C's share of profits upto the date of his death and pass necessary journal entry.

CHAPTER:5

DISSOLUTION OF PARTNERSHIP FIRM

- Q.1 Distinguish between dissolution of partnership and dissolution of partnership firm on the basis of continuation of business.
- Q.2 Why is Realisation Account prepared on dissolution of partnership firm?
- Q.3 State any one point of difference between Realisation Account and Revaluation Account.
- Q.4 All partners wish to dissolve the firm. Yastin, a partner wants that her loan of Rs. 2,00,000 must be paid off before the payment of capitals to the partners. But, Amart, another partner wants that the capital must be paid before the payment of Yastin's loan. You are required to settle the conflict giving reasons.
- Q.5 On a firm's dissolution debtors as shown in the Balance sheet were Rs. 17,000 out of these Rs. 2,000 became bad. One debtor of Rs. 6,000 became insolvent and 40% could be recovered from him. Full recovery was made from the balance debtors. Calculate the amount received from debtors and pass necessary journal entry.
- Q.6 On dissolution of a firm, Kamal's capital account shows a debit balance of Rs. 16,000. His share of profit on realization is Rs. 11,000. He has taken over firm's creditors at Rs. 9,000. Calculate the final payment due to /from him and pass journal entry.
- Q.7 A and B were partners in a firm sharing profits and losses equally. Their firm was dissolved on 15th March, 2004, which resulted in a loss of Rs. 30,000. On that date the capital A/C of A showed a credit balance of Rs. 20,000 and that of B a credit balance of Rs. 30,000. The cash account has a balance of Rs. 20,000. You are required to pass the necessary journal entries for the (i) Transfer of loss to the capital accounts and (ii) making final payment to the partners.
- Q.8 What journal entries would be passed in the books of A and B who are partners in a firm, sharing profits in the ratio of 5:2, for the following transactions on the dissolution of the firm after various assets (other than cash) and third party liabilities have been transferred to Realisation Account?
- (g) Bank loan Rs. 12,000 is paid.
 - (h) Stock worth Rs. 6,000 is taken over by B.
 - (i) Loss on Realisation Rs. 14,000.
 - (j) Realisation expenses amounted to Rs. 2,000, B has to bear these expenses.
 - (k) Deferred Revenue Advertising Expenditure appeared at Rs. 28,000.
 - (l) A typewriter completely written off in the books of the firm was sold for Rs. 200.

**STUDY MATERIAL
ON
HOTS**

Subject: Accountancy

**CLASS – XII(As per NCERT
Book)**

Part –B

**Accountancy Company
Accounts and Analysis of
Financial Statements**

CHAPTER:1 & 2
ACCOUNTING FOR SHARE CAPITAL &
DEBENTURE

THEORETICAL QUESTIONS

Q.1 Gupta Ltd has incurred a loss of Rs. 8,00,000 before payment of interest on debentures. The directors of the company are of the opinion that interest on debentures is payable only when company earn profit. Do you agree?

Q.2 As per latest guidelines governing the servicing of debentures a company is required to create on special account. Name that account.

Q.3 Name the method of redemption of debentures in which there is no requirement of creating Debenture Redemption Reserve.

Q.4 What is the nature of receipt of premium on issue of shares?

Q.5 Can a company issue shares at a premium in the absence of any express authority in its articles?

Q.6 What is the maximum rate of interest which the board of directors of a company can normally pay on calls-in-advance if the articles are silent on the matter of such interest?

Q.7 State with reason whether a company can issue its shares at a discount in its Initial Public Offer (IPO).

Q.8 Why securities premium money can not be used for payment of cash dividend among shareholders?

Q.9 Krishna Ltd. With paid-up share capital of Rs. 60,00,000 has a balance of Rs. 15,00,000 in securities premium account. The company management does not want to carry over this balance. You are required to suggest the method for utilizing this premium money that would achieve the objectives of the management and maximize the return to shareholders.

Q.10 Distinguish between a share and a Debenture.

Q.11 Can share premium be utilised for the purchase of fixed assets?

Q.12 State in brief, the SEBI guidelines regarding Debenture Redemption Reserve(DRR).

Q.13 Which companies are exempted from the obligation of creating DRR by SEBI?

Q.14 What is the restriction on reissue of forfeited shares at discount?

PRACTICAL QUESTIONS

Q.1 X Ltd. issued 20,000 shares of Rs. 10 each at a premium of 10% payable as follows:-

On application Rs. 2 (1st Jan 2001), on allotment Rs. 4 (including premium) (1st April 2001), On first call Rs. 3 (1st June 2001), on second call & final call Rs. 2 (1st Aug. 2001).

Application were received for 18,000 shares and the directors made allotment in full. One shareholder to whom 40 shares were allotted paid the entire balance on his share holdings with allotment money and another shareholder did not pay allotment and 1st call money on his 60 shares but which he paid with final call.

Calculate the amount of interest paid and received on calls-in-advance and calls-in-arrears respectively on 1st Aug. 2001.

Q.2 X Ltd took over the assets of Rs. 6,60,000 and liabilities of Rs. 80,000, Y Ltd for Rs. 600,000. Show the necessary journal entries in the book of X Ltd. assuming that

Case-I : The consideration was payable 10% in cash and the balance in 54000 equity shares of Rs. 10 each.

Case-II : The consideration was payable 10% in cash and the balance in 45000 equity shares of Rs. 10 each.

Case-III : The consideration was payable 10% in cash and the balance in 60,000 equity shares of Rs. 10 each.

Q.3 X ltd. was formed with a capital of Rs. 500,000 divided into shares of Rs. 10 each out of these 2000 shares were issued to the vendors as fully paid as purchase consideration for a building acquired, 1000 shares were issued to signatories to the memorandum of association as fully paid. The directors offered 6500 shares to the public and called up Rs. 6 per and received the entry called up amount on share allotted. Show these transaction in the Balance sheet of a company.

Q.4 X Ltd. invited applications for 11,000 shares of Rs. 10 each issued at 10% premium payable as:

On application Rs. 3 (including Rs. 1 premium)

On allotment Rs. 4 (including Rs. 1 premium)

On 1st Call Rs. 3

On 2nd & final call Rs. 2

Application were received for 24000 shares.

Category I : One fourth of the shares applied for allotted 2000 shares.

Category II: Three fourth the shares applied for allotted 9000 shares.

Remaining applicants were rejected. Mr. Mohan holding 300 shares out of category II failed to pay allotment and two calls and his shares were re issued @ Rs. 11 fully paid-up. Pass necessary journal entries.

Q.5 A company forfeited 240 shares of Rs. 10 each issued to raj at a a premium of 20%. Raman had applied for 300 shares and had not paid anything after paying Rs 6 per share including premium on application. 180 shares were reissued at Rs. 11 per share fully paid up. Pass journal entries relating to forfeiture and reissue of shares.

Q.6 On 1st July 2007. A Ltd gave notice of their intention to redeem their outstanding Rs. 400,000 8% Debentures on 1st January, 2008 @ rs. 102 each and offered the holders the following options-

- (a) To subscribe for (i) 6% cumulative preference shares of Rs. 20 each at Rs. 22.50 per share, accepted by debenture holders of Rs. 1,71,000 or (ii) 12% debentures were issued @96% accepted by the holders of Rs. 1,44,000 Debentures.
- (b) Remaining debentures to be redeemed for cash if neither of the option under (a) was accepted. Pass necessary journal entries.

Q. 7 Sonu Ltd. company issued 15,000 shares of Rs. 10 each. Payment on there shares is to be made as follows:

On application Rs. 4 (1st Feb, 2003)

On allotment Rs. 3 (1st April, 2003)

On final call Rs. 3 (1st May, 2003)

Rakesh to whom 1000 shares were allotted paid the full amount on application and mohan to whom 200 shares were allotted paid the final call money on allotment. Interest @ 6% was paid on 1st May, 2003. Pass necessary journal entries.

Q.8 TPT Ltd. invited applications for issuing 1,00,000 equity shares of Rs. 10 each at a premium of Rs. 3 per share. The whole amount was payable on application. The issue was over subscribed by 30,000 shares and allotment was made on pro-rata basis. Pass necessary journal entries in the books of the company.

Q.9 Virani Industries Ltd. issued 1,00,000, 10% Debentures of Rs. 10 each at a discount of 9% on April 1st, 2001 redeemable as follows:

31st March 2003 - 20,000 Debentures

31st March 2004 - 30,000 Debentures

31st March 2005 - 20,000 Debentures

31st March 2006 - Remaining Debentures

Calculate the amount of discount to be written off each year and prepare discount on issue of debentures account.

Q.10 The following balance appeared in the books of Z Ltd. on January 1, 2004.

12% Debentures A/C Rs. 1,50,000

Debenture Redemption Fund Rs. 1,25,000

Debenture Redemption Fund Investment Rs. 1,25,000

(Represented by Rs. 1,47,500, 3% Govt. Securities)

The annual installment added to the fund is Rs. 20,575. On December 31, 2004, the bank balance after the receipt of interest on investment was Rs. 39,100. On that date all the investment were sold at 83% and the debentures were duly redeemed. Show the necessary ledger accounts for the year 2004.

Q.11 On 01-04-1999, A Ltd., issued 2000, 7% debentures of Rs. 100 each at a discount of 10% redeemable at par after 4 years by converting them into equity shares of Rs. 100 each issued at a premium of 25%.

Pass journal entries in the following cases:

- (iv) If debentures are redeemed on maturity.
- (v) If debentures are redeemed before maturity.

Q.12 Pass journal entries for the following at the time of issue of debentures:

- (a) B Ltd. issues 30,000, 12% Debentures of Rs. 100 each at a discount of 5 % to be repaid at par at the end of 5 years.
- (b) E Ltd. issues Rs. 60,000, 12% Debentures of Rs. 100 each at a discount of 5 % repayable at a premium of 10% at the end of 5 years.
- (c) F Ltd. issues Rs. 70,000, 12% Debentures of Rs. 100 each at a premium of 5 % redeemable at 110%.

Q.13 500 shares of Rs. 100 each issued at a discount of 10% were forfeited for the non-payment of allotment money of Rs. 50 per share. The first and final call of Rs.10 per share on these shares were not made. The forfeited shares were reissued at Rs. 80 per share fully paid-up.

Q.14 200 shares of Rs. 100 each issued at a discount of 10% were forfeited for the non payment of allotment money of Rs. 50 per share. The first and final call of Rs. 10 per share on these shares were not made. The forfeited share were reissued at Rs. 14 per share fully paid up.

Q.15 800 Shares of Rs. 10 each issued at per were forfeited for the non-payment of final call of Rs. 2 per share. These shares were reissued at Rs. 8 per share fully paid-up.

Chapter 3 & 4

Analysis of Financial Statements

Qus:1 How will you show the following items in the Balance sheet of a company.
(i) Calls in Arrears (ii) Calls in Advance.

Qus:2 Under what heads the following items on the Liabilities side of the Balance sheet Of a company will be presented

- (iv) Proposed Dividend.
- (v) Unclaimed Dividend.

Qus:3 State any two items which are shown under the head 'Investment' in a company balance sheet.

Qus:4 Give the format of the Balance sheet of a company(main headings only) as per the requirement of Schedule VI of the companies Act.1956.

Qus:5 Give the heading under which the following items will be shown in a company's Balance sheet:

- (vi) Goodwill.
- (vii) Preliminary Expenses
- (viii) Loose Tools
- (ix) Capital Redemption Reserve.
- (x) Live Stock.

Qus:6 The following balance have been from the book of Sahara Ltd. Share capital Rs.10,00,000, securities

Premium Rs. 1,00,000, 9% Debentures Rs. 500,000, Creditors Rs. 200,000., Proposed Dividend

Rs. 50,000. , Freehold property RS. 9,00,000, share of Reliance Industries Rs. 4,00,000, Work-in-

Progress Rs. 4,00,000, Discount on Issue of Debentures Rs. 1,00,000.

Prepare the balance sheet of the company as per schedule VI part 1 of the companies Act.1956.

Qus:7 List any three items that can be shown as contingent Liabilities in a company's Balance sheet.

Qus:8 Give two example each of Non-Current Assets and Non- Current Liabilities.

Qus:9 What is Horizontal Analysis?

Qus:10 Give the example of Horizontal Analysis.

Qus:11. What is Vertical Analysis?

Qus:12. Give the example of Vertical Analysis?

Qus:13. How is a Company's balance sheet different from that of a Partnership firm? Give Two point only.

Qus:14. List any two information required to be given in the balance sheet of a company or by way of foot

Notes.

Qus:15. State whether the Balance sheet of a Company is prepared ' as on a particular date ' or ' as at a

Particular date ' ?

Qus:16. Which part of Schedule VI to the Companies Act.1956 prescribes the forms of the balance sheet ?

Qus:17. How is analysis of Financial statements suffered from the limitation of window dressing ?

Qus:18. What is the interest of Shareholders in the analysis of Financial statements?

Qus:19. Name two tools of Financial Analysis ?

Qus:20: Which item is assumed to be 100 in the case of common size Income statement .

Qus:21 Prepare Comparative income statement from the following information for the years ended march 31,2003 and 2004.

Particulars	2003(Rs.)	2004(Rs.)
1.Net Sales	8,00,000	10,00,000
2.Cost of Goods Sold	60% of sales	60% of sales
3.Indirect Expenses	10% of Gross profit	10% of Gross Profit
4.Income Tax rate	50%	60%

Chapter - 5

Ratio Analysis

Qus:1 How will you assess the liquidity or short term financial position of a business ?

Qus:2 Current ratio of Reliance Textiles Ltd. is 1.5 at present. In future it wants to improve this ratio to 2.

Suggest any two accounting transactions for improving the current ratio.

Qus:3 State one transaction which results in an increase in 'liquid ratio' and no change in 'current ratio'.

Qus:4 Why stock is excluded from liquid assets ?

Qus:5 Quick ratio of a company is 1.5 : 1. State giving reason whether the ratio will improve, decline or

Not change on payment of dividend by the company.

Qus:6 State one transaction which results in a decrease in 'debt-equity ratio' and no change in 'current

Ratio'.

Qus:7 How does ratio analysis become less effective when the price level changes?

Qus:8. Indicate which ratio a shareholder would use who is examining his portfolio and wants to decide

Whether he should hold or sell his shareholdings?

Qus:9 Indicate which ratio would be used by a Long-Term creditor who is interested in determining

whether his claim is adequately secured ?

Qus:10 What will be the Operating profit, if operating Ratio is 78% ?

Qus:11 The Debtors turnover Ratio of a company is 6 times. State with reasons whether the ratio will

Improve, decrease, or not change due to increases in the value of closing stock by Rs. 50,000?

Qus:12 What will be the impact of 'Issue of shares against the purchase of fixed assets' on a debt

Equity ratio of 1:1 ?

Qus:13 State one transaction involving a decrease in Liquid ratio and no change in current ratio.

Qus:14 Assuming that the Debt Equity Ratio is 2:1. State giving reason , whether the ratio will improve , decline or will have no change in case bonus shares allotted to equity shareholders by Capitalizing profits.

Qus:15 The ratio of current Assets (Rs. 9,00,000) to current liabilities is 1.5:1. The accountant of this Firm is interested in maintaining a current ratio of 2:1 by paying some part of current liabilities You are required to suggest him the amount of current liabilities which must be paid for the Purpose.

Qus:16 A company has a loan of Rs.15,00,000 as part of its capital employed. The interest payable on Loan is 15% and the ROI of the company is 25%. The rate of income tax is 60%.what is the Gain to shareholders due to the loan raised by the company ?

Qus:17 Rs.2,00,000 is the cost of goods sold, inventory turnover 8 times, stock at the beginning is 1.5 Times more than the stock at the end. Calculate the value of opening & closing stock .

Qus:18 From the given information, calculate the stock turnover ratio: sales Rs.5,00,000, Gross Profit 25% on cost , opening stock was 1/3rd of the value of closing stock. Closing stock was 30% Of sales.

Qus:19 Calculate cost of goods sold from the following information: Sales Rs.12,00,000, Sales Returns Rs.80,000, operating expenses Rs.1,82,000, operating ratio 92%.

Qus:20 Calculate the amount of opening stock and closing stock from the following figures:
Average Debt collection period 4 month stock turnover ratio 3 times.
Average Debtors Rs.1,00,000 Cash sales being 25% of total sales Gross profit ratio 25%
stock at the end was 3 Times that in the beginning.

Qus:21 (a) Calculate return on Investment from the following information :
Net profit after Tax Rs.6,50,000.
12.5% convertible debentures Rs 8,00000.
Income Tax 50%.

Fixed Assets at cost Rs.24,60,000.
Depreciation reserve Rs.4,60,000.
Current Assets Rs. 15,00,000.
Current Liabilities Rs. 7,00,000.

- (b) Profit before interest and tax(PBIT) Rs.2,00,000, 10% preference shares of Rs.100 each.
Rs.2,00,000, 2,0000 equity shares of Rs. 10 each, Rate of tax @ 50%
calculate earning per
Share(EPS).

Chapter 6

Cash Flow Statement

Qus:1 Why is the cash flow statement not a suitable judge of profitability ?

Qus:2 Under which accounting standard , cash flow statement is prepared ?

Qus:3 Why do we add back depreciation to net profit while calculating cash flow from operating activities.

Qus:4 How will you classify loans given by Birla Finance Ltd.? While preparing cash flow statement.

Qus:5 How will you classify deposits by customers in HDFC Bank while preparing cash flow statement.

Qus:6 Where will you show purchase of computer in cash flow statement ?

Qus:7 Give two examples of ‘ Significant non cash transactions ‘ .

Qus:8 How will you classify loans given by Tata Manufacturing Company.

Qus:9 A company receives a dividend of Rs. 2 Lakhs on its investment in other company’s share will it be
Cash inflow from operating or investing activities in case of a.

- (iii) Finance Company.
- (iv) Non-Finance Company.

Qus:10 How are various activities classified as per AS-3 (Revised) ?

Qus:11 Cash flow from operating Activities + Cash flow from Investing Activities + Cash flow from Financing Activities =.....

Qus:12 What are the two methods which can be employed to calculate net cash flow from operating activities ?

Qus:13 Escorts Ltd. Engaged in the business of manufacturing tractors invested Rs.40,00,000 in the shares of a Car manufacturing Company. state with reason whether the dividend received on this investment will Be cash flow from operating activities or Investing activities.

Qus:14 Modern Toys Ltd. Purchased a machinery of Rs.20,00,000 for manufacturing toys. State giving reason Whether the cash flow due to the purchase of machinery will be cash flow from operating activities, Investing activities or Financing activities ?

Qus:15 From the following profit or loss account find out the flow of cash from operating activities of Mohan Ltd.

Dr. **PROFIT AND LOSS ACCOUNT**
Cr.

Particulars	Amount	Particulars
	(Rs)	

To Rent Paid	14,000		By Gross Profit	
Less: Prepaid	<u>2,000</u>	12,000	By Profit on Sale of Machine	
To Salaries		25,000	By Tax Refund	
To Depreciation		15,000	By Rent received	4,000
To Loss on sale of Furniture		10,000	Add: Rent accrued	<u>1,000</u>
To Goodwill written Off		8,000		
To Bad Debts		3,000		
To Office Expenses		18,000		
To Discount allowed		7,000		
To Proposed Dividend		30,000		
To Provision for Tax		22,000		
To Net Profit		52,800		
		<u>2,02,800</u>		

Note: There was increase in Closing stock by Rs. 25,000.

Qus:16 Prepare Cash flow Statement from the following information of Box Ltd. For the year ended March 31,2004.

BALANCE SHEETS OF LION LTD. AS ON MARCH

31,2004

Liabilities	2003	2004	Assets	2003	2004
	(Rs)	(Rs)		(Rs)	(Rs)
Share capital	3,00,000	4,00,000	Goodwill	70,000	30,000
Profit & Loss	1,20,000	2,60,000	Machinery	3,00,000	3,20,000
Account	60,000	95,000	12% Investments	1,50,000	3,00,000
General Reserve	70,000	80,000	Stock	35,000	1,85,000
Tax Provision	50,000	90,000	Debtors	50,000	70,000
Creditors	30,000	10,000	Cash at Bank	30,000	40,000
Bill Payables	25,000	40,000	Short term	20,000	30,000
Depreciation			Investment		
Provision	<u>6,55,000</u>	<u>9,75,000</u>		<u>6,55,000</u>	<u>9,75,000</u>

Additional Information :

1. Investment costing Rs.50,000 were sold for Rs. 48,000 during the year.
2. Tax paid during the year Rs.70,000.
3. Interest received on Investment Rs. 12,000.

SUGGESTED ANSWERS

ON

HOTS

Subject: Accountancy

**CLASS – XII(As per NCERT
Book)**

Part –A

**Accountancy Not – for Profit
organization and partnership
Accounts**

CHAPTER:1
NOT FOR PROFIT ORGANISATION

Q. 1 (i) Subscription (ii) Donation.

Q.2 (i) Receipts and Payments Account is a summary of Cash Book.

(ii) Non- cash expenses such as depreciation and outstanding expenses are not shown in Receipts and Payments Account.

Q.3 Subscription due to be received is added with subscription received during the year in Income and Expenditure A/C and shown as an asset in the closing balance sheet.

Q.4 Subscription received in advance is subtracted from subscription received during the year in Income and Expenditure A/C and shown as a liability in the closing Balance sheet.

Q.5 Fund based accounting is a book peeping technique where by separate self-balancing sets of assets, liability, income, expenses and fund balance accounts are maintained for each contribution for a specific purpose.

Q.6 **Income and Expenditure A/C**
For the year ended

Expenditure	Rs.	Income	Rs.
To Tournament Expenses 18000			
Less Tournament Fund 15000	3000		

Q. 7 Calculation of current year subscription to be shown in Income and Expenditure A/C for the year ended March 31, 2008 :-

Total subscription received during the year 250000

Add:-

Outstanding subscription on 31-03-2008	35000	
Advance subscription on 01-04-2007	<u>NIL</u>	<u>35000</u>
		285000

Less :-

Outstanding subscription on 01-04-07	50000	
<u>Advance subscription on 31-03-2008</u>	<u>30000</u>	<u>(80000)</u>
Current year subscription		205000

Q. 8 **Income and Expenditure A/C**
For the year ending March 31, 2007

Expenditure	Rs.	Income	Rs.
		By Subscription 30000 Add:- outstanding subscription for 2006 -07 (18500-1500) 17000 Add:- Advance in 2005-06 4000	51000

Balance sheet
As on 31st March 2007

Liabilities	Amount	Assets	Amount
Subscription in advance	5000	Subscription outstanding 2005-06 1500 2006-07 17000	18500

Q. 9 Calculation of salaries to be shown in Income and Expenditure A/C for the year ended March 31, 2008:-

	Rs.	
Total Salaries paid during the year	87,000	
Add:-		
Outstanding salaries on 31-03-2008	32,000	
Prepaid salaries on 01-04-2007	19,000	51,000
		138,000
Less:-		
Outstanding Salaries on 01-04-2007	17,000	
Prepaid salaries on 31-03-2008	2,000	(37,000)
Salaries to be shown in Income and Expenditure A/C		101000

Q. 10

Amount paid for sports items during the year		97900
Add:-		
Stock of sports items as on 01-04-2006	44700	
Creditors for sports as on 31-03-2007	26500	71200
		169100
Less :-		
Stock of sports items as on 31-03-2007		24500
Sports items to be debited in the Income and expenditure A/C		144600

Q.11

Balance sheet of Cosmos Ltd.
As on 31st March, 2007

Liabilities	Amount	Assets	Amount
Tournament Fund		Tournament Fund	

1,50000		investment.	1,50000
Add		Accured interest on	
Income from Tournament Fund		Tournament fund	
Investment	18,000	Investment	6000
<u>Accured interest on tournament fund</u>			
<u>Investment</u>	6000		
	162000		
1,74,000			
Less Tournament Expenses			
12,000			

Q. 12 Amount paid for medicine during the year 6,79000

Add:-

Stock of medicine on 01-04-2006	90,000	
Creditors for medicine on 31-03-2007	204,000	294,000
		<u>9,73,000</u>

Less:-

Stock of medicine on 31-03-2007	124,000	
Creditors for medicine as on 01-04-2006	240,000	364,000
Medicine to be debited in in Income and Expenditure A/C.		<u>609000</u>

Q. 13 Difference between Receipts and Payments and Income and Expenditure.

Basis	Income and Expenditure	Receipts and Payments
(i) Nature	It is a kin to profit and loss A/C	It is the summary of Cash book.
(ii) Nature of Items	It records income and expenditure of revenue nature only	It records receipts and payments of both capital and revenue nature.
(iii) Result	The result of Income and expenditure A/C is surplus or deficit.	The result of Receipt and Payments is closing balance of cash and Bank.

CHAPTER:2
ACCOUNTING FOR PARTNERSHIP FIRMS: BASIC CONCEPTS

Ans. 1 (i) When additional capital is introduced.
(ii) When capital is withdrawn.

$$\begin{array}{rcl} \text{Ans. 2} & 60000 \times 9/100 & = & 5400 \\ & \underline{20000 \times 9/100 \times 3/12} & = & 450 \\ & \text{Total Interest} & & 5850 \end{array}$$

Ans. 3 Charu is correct as in the absence of partnership agreement, profits and losses are divided equally among partners.

Ans. 4 A's claim is not valid as in the absence of partnership deed, no salary is allowed to partners.

Ans. 5 Chander's claim is not valid as in the absence of partnership deed interest on partners loan is provided @ 6% p.a.

Ans. 6 As per provision of Indian Partnership act 1932, when there is no partnership, no partner is entitled for interest on his capital contribution.

$$\text{Ans. 7 Interest on drawing} = 12000 \times 6/100 \times 6.5/12 = 390$$

$$\text{Ans. 8 Interest on drawing} = 9600 \times 6/100 \times 5.5/12 = 264$$

Ans. 9

ANALYSIS TABLE

	A	B	C
--	----------	----------	----------

Interest on Capital (3 years) Cr.	30000	24000	21000
Adjustment of profit Dr.	25000	25000	25000
	(Cr) 5000	(Dr) 1000	(Dr) 4000)

Journal Entry :-

B's current A/C	Dr. 1000	
C's Current A/C	Dr. 4000	
To A's current A/C		5000

(Adjustment entry for omission of interest on capital @ 10% p.a.)

Ans. 10

ANALYSIS TABLE

	X	Y	Z	Total
Interest on drawings (Dr)	750	630	600	1980
Adjustment of profit (Cr)	990	660	330	1980
	(Cr) 240	(Cr) 30	(Dr)270	-

Z's Capital A/C	Dr. 270	
To X's Current A/C		240
To Y's current A/C		30

(Adjustment entry for omission of interest on drawings @ 5 % p.a.)

Ans. 11

ANALYSIS TABLE

	A	B	C	Total
Wrong profit Dr.	20000	20000	20000	60000
Interest on Capital @ 2% Cr.	3000	2000	1600	6600
Correct profit Cr.	26700	17800	8900	53400
	(Cr) 9700	(Dr) 200	(Dr) 9500	-

B's Current A/C	Dr. 200	
C's Current A/C	Dr. 9500	
To A's current A/C		9700

(Adjustment entry for interest on capital and distribution in wrong ratio.)

Ans. 12

ANALYSIS TABLE

	Ravi	Mohan	Total
Wrong Profit Distributed Dr.	252000	252000	504000
Interest on capital omitted Cr.	120000	84000	204000
Salary to be provided Cr.	72000	60000	132000
Current Profit Cr.	98000	70000	168000

Net adjustment Cr. 38000 Dr. 38000

- Ans. 4 (i) On admission of a new partner.
 (ii) On change on profit sharing ratio of existing partner.

Ans. 5 (i) Capital employed = Assets – Liabilities
 = 540000 – 80000
 = Rs. 460000

(ii) Normal Profit = Capital employed X Normal rate of return/100
 = Rs. 460000 X 10/100 = 46000

(iii) Super Profit = Firm's Average profit – Normal Profit
 = 60000 – 46000
 = 14000

(iv) Goodwill = Super profit X 100/ Normal rate of return
 = 14000 X 100/ 10
 = 140000

Ans. 6 (i) Super profit = Value of goodwill /Number of years purchase
 = 180000/2
 = 90000

(ii) Normal Profit = Capital employed X Normal rate of return /100
 = 1000000 X 15/ 100
 = 150000

(vi) Average Profit = Normal Profit + Super profit
 = 150000 + 90000
 = 240000

Ans. 7 (i) Super profit = value of goodwill/ number of years purchase
 = 240000/3
 = 80000

(ii) Normal Profit = Average profit – Super profit
 = 20000 – 8000
 = Rs. 12000

(iii) Capital Employee = Normal Profit X 100/ Normal rate of return
 = 12000 X 100/8
 = 150000

Ans. 8 Rahul's sacrificing share = $\frac{4}{7} \times \frac{1}{4} = \frac{1}{7}$
 Sahil's sacrificing share = $\frac{3}{7} \times \frac{1}{3} = \frac{1}{7}$
 Rahul's new share = $\frac{4}{7} - \frac{1}{7} = \frac{3}{7}$
 Sahil's New share = $\frac{3}{7} - \frac{1}{7} = \frac{2}{7}$
 Kamal's share = $\frac{1}{7} + \frac{1}{7} = \frac{2}{7}$
New profit sharing ratio = 3:2:2

Ans. 9 Ajay's sacrifices = $\frac{1}{4} \times \frac{2}{3} = \frac{2}{12}$
 Naveen's sacrifices = $\frac{1}{4} \times \frac{1}{3} = \frac{1}{12}$
 Ajay's new share = $\frac{5}{8} - \frac{2}{12} = \frac{11}{24}$
 Naveen's New share = $\frac{3}{8} - \frac{1}{12} = \frac{7}{24}$
 Surender's share = $\frac{1}{4}$ or $\frac{6}{24}$
New ratio = 11:7:6

Ans. 10

Old ratio	= A: B	= 3:2	
A surrender	= $\frac{3}{5} \times \frac{1}{6}$	= $\frac{3}{30}$	= $\frac{1}{10}$
B surrender	= $\frac{2}{5} \times \frac{1}{4}$	= $\frac{1}{10}$	
A's new share	= $\frac{3}{5} - \frac{1}{10}$	= $\frac{5}{10}$	
B's new share	= $\frac{2}{5} - \frac{1}{10}$	= $\frac{3}{10}$	
C's new share	= $\frac{1}{10} + \frac{1}{10}$	= $\frac{2}{10}$	
New ratio	= 5/10, 3/10, 2/10 OR 5:3:2		

Sacrificing Ratio	= Old ratio – New ratio
A	= $\frac{3}{5} - \frac{5}{10} = \frac{1}{10}$
B	= $\frac{2}{5} - \frac{3}{10} = \frac{1}{10}$
Sacrificing ratio	= 1:1

Ans. 11

Old ratio	=	5:3
Shital	=	$\frac{1}{4}$ th Share

Let the profit be Rs. 1

Remaining profit	=	$1 - \frac{1}{4}$	= $\frac{3}{4}$
Arti : Babita	=	2:1	
Arti's share	=	$\frac{3}{4} \times \frac{2}{3}$	= $\frac{1}{2}$
Babita's Share	=	$\frac{3}{4} \times \frac{1}{3}$	= $\frac{1}{4}$
New Ratio	= 1/2, 1/4, 1/4 Or 2:1:1		

Sacrificing ratio	= Old ratio – New ratio
Arti's sacrifices	= $\frac{5}{8} - \frac{2}{4} = \frac{1}{8}$
Babita's Sacrifies	= $\frac{3}{8} - \frac{1}{4} = \frac{1}{8}$
Sacrificing Ratio	= 1:1

Ans. 12 Old ratio = X:Y = 1:1

Z is admitted for $\frac{1}{6}$ th share which he acquire from X,Y in the ratio of 1:1

Since $\frac{1}{6} \times \frac{1}{2} = \frac{1}{12}$	from X and Y
X's new ratio	= $\frac{3}{5} - \frac{1}{12} = \frac{31}{60}$
Y's New ratio	= $\frac{2}{5} - \frac{1}{12} = \frac{19}{60}$
Z's share	= $\frac{1}{6}$
New ratio	= 31/60, 19/60, 1/6 or 31:19:10

Ans. 13

Old ratio	= Rakhi : Parul	= 3:1
New ratio = Rakhi: Parul: Neha	= 2:3:2	
Rakhi's sacrifice	= $\frac{3}{4} - \frac{2}{7} = \frac{13}{28}$	
Parul's sacrifice	= $\frac{1}{4} - \frac{3}{7} = \frac{5}{28}$ (Gain)	

So, Rakhi's sacrifice $\frac{13}{28}$ th share and Parul is gaining to the extent of $\frac{5}{28}$ th share.

Ans. 14

Cash A/C	Dr. 1500	
To premium A/C		1500
(cash brought in by Z for his share of goodwill)		

Premium A/C	Dr. 1500	
To X's capital A/C		1000
To Y's Capital A/C		500

(Goodwill distributed among sacrificing partners in the ratio of 2:1.)

Ans. 15

Cash A/C	Dr. 70000	
To Nilu's capital A/C		60000
To premium A/C		10000

(Cash brought in by new partner)

Premium A/C	Dr. 10000	
To Priya's capital A/C		10000

(Amount of goodwill distributed among sacrificing partner in their sacrificing ratio.)

Ans. 16

Cash A/C	Dr. 1000	
To premium A/C		1000

(Amount of goodwill brought in by C)

Premium A/C	Dr. 1000	
C's capital A/C	Dr. 800	
To A's capital A/C		900
To B's capital A/C		900

(Rs. 1800 distributed among sacrificing partners in sacrificing ratio.)

A's capital A/C	Dr. 3000	
B's capital A/C	Dr. 3000	
To goodwill A/C		6000

(Old goodwill written off among old partners in old ratio.)

Q. 17

Cash A/C	Dr. 10000	
To C's capital A/C		10000

(Cash brought in by C for his share of capital)

A's capital A/C	Dr. 1200	
B's Capital A/C	Dr. 800	
To goodwill A/C		2000

(Old goodwill written off among old partners in old ratio.)

C's capital A/C	Dr. 3000	
To A's capital A/C		1800
To B's capital A/C		1200

(Adjustment of goodwill on admission of C)

Ans. 18

Cash A/C	Dr. 4000	
To premium A/C		4000

(Amount of goodwill brought in by new partner)

Premium A/C	Dr. 4000	
To Piyush's capital A/C		4000

(Goodwill distributed among sacrificing partners in their sacrificing ratio.)

Ans. 19

Cash A/C	Dr. 26000	
To C's capital A/C		26000

(Amount of capital brought in by new partner.)

C's capital A/C	Dr. 7500	
To A's capital A/C		3750
To B's capital A/C		3750

(C's share of goodwill distributed among A and B)

Calculation of Hidden goodwill:-

Capital of A and B	= 26000 + 22000
	= 48000
C brings	= 26000 for 1/4 th share
Total capital of the firm	= 26000 X 4/1
	= 104000
Existing capital of the firm	= 48000 + 26000
	= 74000
Goodwill	= 104000 – 74000
	= 30000
C's share of goodwill	= 30000 X 1/4 = 7500

Ans. 20

C's capital A/C	Dr. 5250	
To A's capital A/C		3150
To B's capital A/C		2100

(C's share of goodwill distributed among old partners in sacrificing ratio i.e. 3:2)

Ans. 21

Cash A/C	Dr. 8000	
To C's capital A/C		8000

(Amount of capital brought in by new partner)

C's capital A/C	Dr. 2000	
To A's capital A/C		1000
To B's capital A/C		1000

(Share of goodwill distributed among A and B in sacrificing ratio i.e. 1:1)

Calculation of Hidden Goodwill.

C brings 8000 for 1/5 share

Since total capital of the firm	= 8000 X 5/1
	= 40000
Existing capital of the firm	= 13000 + 9000 + 8000
	= 30000
Goodwill	= 40000 – 30000

		partner.
(iii) Formula	Sacrificing ratio = Old ratio – New ratio	Gaining ratio – Old ratio

Ans. 2 Gaining Ratio = New ratio – Old ratio

$$\text{Kamal's Gain} = 4/7 - 1/3 = 5/21$$

$$\text{Kunal's Gain} = 3/7 - 1/3 = 2/21$$

$$\text{Gaining Ratio} = 5:2$$

Ans. 3 Old ratio = P Q R
7 : 2 : 1

New ratio = Q R
2 : 1

Gaining Ratio = New ratio – Old ratio

$$\text{Q's gain} = 2/3 - 2/10 = 14/30$$

$$\text{R's gain} = 1/3 - 1/10 = 7/30$$

$$\text{Gaining Ratio} = 14:7 \text{ or } 2:1$$

Ans. 4 A's gaining share = $2/5 \times 1/2 = 1/5$

$$\text{A's new share} = 2/5 + 1/5 = 3/5$$

$$\text{C's gaining share} = 2/5 \times 1/2 = 1/5$$

$$\text{C's New share} = 1/5 + 1/5 = 2/5$$

New ratio of A and C = 3:2

Ans. 5

$$\text{Y's gaining share} = 4/9 \times 2/3 = 8/27$$

$$\text{Z's gaining share} = 4/9 - 8/27 = 4/27$$

$$\text{Y's new share} = \text{Old share} + \text{gain}$$

$$= 1/3 + 8/27 = 17/27$$

$$\text{Z's new share} = 2/9 + 4/27 = 10/27$$

$$\text{New Ratio} = 17:10$$

$$\text{Gaining ratio} = 8/27 : 4/27 \text{ or } 2:1$$

Ans. 6

$$\text{Old Ratio} = 3:2:1$$

Z Retire

$$\text{X's Gaining} = 1/6 \times 2/3 = 2/18$$

$$\text{X's New share} = 3/6 + 2/18 = 11/18$$

$$\text{Y's Gaining} = 1/6 \times 1/3 = 1/18$$

$$\text{Y's new share} = 2/6 + 1/18 = 7/18$$

$$\text{New Ratio} = 11/18, 7/18 \text{ Or } 11:7$$

Ans. 7 Old ratio = P Q R
= 4:5:6

Q retired

$$\text{P's gaining} = 1/3 \times 5/15 = 1/9$$

$$\text{P's new share} = 4/15 + 1/9 = 17/45$$

$$\text{R's Gaining share} = 2/3 \times 5/15 = 2/9$$

$$\begin{aligned} \text{R's new share} &= 6/15 + 2/9 = 28/45 \\ \text{New Ratio} &= \mathbf{17:28} \end{aligned}$$

Ans. 8 Rohit's capital A/C Dr. 24000
 To Mayank's capital A/C 6000
 To harshit's Capital A/C 18000
 (Adjustment Entry for treatment of goodwill in gaining ratio.)

Ans. 9 Suresh capital A/C Dr. 48000
 To Ramesh's capital A/C 12000
 To Naresh capital A/C 36000
 (Goodwill adjusted among the gaining partner in gaining ratio.)

Ans. 10 O's capital A/C Dr. 40000
 To C's capital A/C 20000
 To M's capital A/C 20000
 (Adjustment of goodwill in gaining partners in their gaining ratio.)

Ans. 11 Profit and loss suspense A/C Dr
 To deceased partner's capital A/C

Ans. 12 Total profit for the year ended 31st March 2007 = Rs 300000
 Y's share of profit up to date of death = $300000 \times 2/6 \times 3/12$
 = 25000
 Profit and Loss suspense A/C Dr. 25000
 To Y's capital A/C 25000
 (Y's share of profit transferred to Y's capital A/C)

Ans. 13 Profit and Loss suspense A/C Dr. 10000
 To B's capital A/C 10000
 (B's share of profit transferred to B's capital A/C)

A's capital A/C Dr. 15000
 C's capital A/C Dr. 5000
 To B's capital A/C 20000
 (B's share of goodwill transferred to B's capital A/C and debited to remaining partners capital A/C in their gaining ratio.)

B's share of profit = Number of days from 1 April to 12th June 2007
 = 73 Days
 B's share of profit = $150000 \times 1/3 \times 73/365$
 = Rs. 10000

Ans. 15 Profit & Loss suspense A/C Dr. Rs. 12,500
 To C's capital A/C Rs. 12,500

CHAPTER - 5 **DISSOLUTION OF PARTNERSHIP FIRM**

Ans. 1 In case of dissolution of partnership, the firm may continue its business operation but in case of dissolution of partnership firm, the business operations are discontinued.

**SUGGESTED ANSWERS
ON
HOTS**

**Subject: Accountancy
CLASS – XII(As per NCERT
Book)**

Part –B

**Accountancy Company
Accounts and Analysis of
Financial Statements**

CHAPTER-1 &2
ACCOUNTING FOR SHARE CAPITAL & DEBENTURE

THEORETICAL QUESTIONS

- Ans.1 No' because Interest on debentures is a charge against profit and not an appropriation of profit.
- Ans. 2 Debenture Redemption Reserve Account.
- Ans. 3 Redemption of debentures by conversion.
- Ans. 4 Capital Nature.
- Ans. 5 Yes. [Hint See section 78]
- Ans. 6 According to table 'A' not exceeding 6 % p.a.
- Ans. 7 Section 79 Companies Act- the shares must be of a class already issued. So a company cannot issue shares at a discount in its Initial Public Offer.
- Ans. 8 It is restricted under section 78 of Indian Companies Act.
- Ans. 9 Mention the provisions of section 78.
- Ans. 10 Basis of difference :
- (v) Ownership
 - (vi) Return
 - (vii) Voting Right
 - (viii) Convertibility
- Ans. 11 No.
- Ans. 12 As per SEBI guidelines, an amount equal to 50% of the debenture issue, must be transferred to DRR before the redemption begins.
- Ans. 13 The following companies are exempted from the obligation of creating DRR –
- (iii) A company which has issued debentures with a maturity of 18 months or less.
 - (iv) Infrastructure companies, which are wholly engaged in the business of developing, maintaining and operating infrastructure facilities.

Ans. 14 A Company can reissue forfeited shares at a discount not more than amount forfeited on these shares.

PRACTICAL QUESTIONS

Ans. 1 Interest on Calls in advance Rs. 2.80
Interest on Calls in arrears Rs. 5.50

Ans. 2

Solution:-

(i)	Sundry Assets A/C Dr. Goodwill A/C Dr. To Sundry Liabilities To Y Ltd.	660,000 20,000	80000 600000
(ii)	Y Ltd. Dr. To Bank A/C	60,000	60000
Case I	Y Ltd Dr. To Equity share capital A/C	540,000	540,000
Case II	Y Ltd Dr. To Equity share capital A/C To securities premium A/C	540,000	450,000 90,000
Case III	Y' Ltd Dr. Discount on issue share A/C Dr. To Equity share capital A/C	540,000 60000	600,000

Ans. 3 Issued Capital Rs. 95000.

Ans. 4 Hint-

- (iv) Amount received on allotment Rs. 26,100.
- (v) Amount transferred to share forfeited A/C Rs. 900
- (vi) Amount transferred to Capital Reserve Rs. 600.

Ans. 5 Capital Reserve Rs. 990.

Ans. 6

Hints-

- (1) Case a (i) – No. of preference shares issued 7752.
- (2) Case a (ii)- No. of debentures issued 1530.
- (3) Remaining 85000 debentures paid in cash.

Ans. 7 Interest on Calls in advance = 15 + 3 = Rs. 18

Ans. 8

- (iii) Dr. Bank A/C Rs. 16,90,000, Cr. Eq. share Application A/C Rs. 16,90,000.
 (iv) Dr. Eq. Share Application A/C Rs. 16,90,000, Cr. Eq. share Capital A/C Rs. 10,00,000, Cr. Security premium A/C Rs. 300,000, Cr. Bank A/C Rs. 3,90,000.

Ans. 9 Amount of discount = Rs. 90,000

Discount to be written off:

2001-02	-	Rs. 25,000
2002-03	-	Rs. 25,000
2003-04	-	Rs. 20,000
2004-05	-	Rs. 12,500
2005-06	-	Rs. 7,500

Ans. 10

Hint : (i) Loss on sale of investment Rs. 2575.

(ii) Amount transferred to General Reserve Rs. 1,47,425.

Ans. 11 Case (i) – No. of Equity shares to be issued 1,600.

Case (ii) – No. of Equity shares to be issued 1,440.

Ans. 12

Journal of B Ltd.

(a)

(i) Bank A/C	Dr. 28,50,000	
To. Deb. Application & Allotment A/C		28,50,000
(ii) Deb. Application & allotment A/C	Dr. 28,50,000	
Discount on issue of Debentures	Dr. 1,50,000	
To 12 % debentures A/C		30,00,000

Journal of E Ltd.

(b)

(i) Bank A/C	Dr. 57,000	
To. Deb. Application & Allotment A/C		57,000
(ii) Deb. Application & allotment A/C	Dr. 57,000	
Loss on issue of Debentures A/C	Dr. 9,000	
To 12 % debentures A/C		60,000
To Debenture Redemption Premium A/C		6000

Journal of F Ltd.

(c)

(i) Bank A/C	Dr. 73,500	
To. Deb. Application & Allotment A/C		73,500
(ii) Deb. Application & allotment A/C	Dr. 73,500	
Loss on issue of Debentures A/C	Dr. 7,000	
To 12 % debentures A/C		70,000
To Securities premium A/C		3,500
To Debenture Redemption Premium A/C		7,000

Ans. 13 Capital Reserve Rs. 10,000

Ans. 14 Capital Reserve Rs. 600

Ans. 15 Capital Reserve Rs. 4,800.

Chapter 3 & 4 **Analysis of Financial Statements**

Ans:1 (i) Calls in Arrears: It is deducted from the subscribed capital.
(vi) Calls in Advance: It is shown separately under the subscribed capital.

Ans:2 Items	Heading	Sub-Heading
Proposed dividend	Current Liabilities & Provision	Provision
Unclaimed dividend	Current Liabilities & Provision	Current Liabilities

Ans:3 (i) Government Securities.
(ii) Sinking Fund Investment.

Ans:4 Balance sheet as on_____

Liabilities	Rs.	Assets	Rs.
Share capital		Fixed Assets	
Reserve & surplus		Investment	
Secured Loans		Current Assets,	
Unsecured Loans		Loan and Advances	
		(a) Current Assets	
		(b) Loans & Advance	
Current Liabilities & Provision		Miscellaneous Expenditures	
(c) Current Liabilities		Profit & Loss amount	
(Dr.Balance)			

(d) Provision

Ans:5 (i) Fixed Assets.
(ii) Miscellaneous Expenditures
(iii) Current Assets Loans & Advance under Current Assets.
(iv) Reserve and Surplus.
(v) Fixed Assets.

Ans:6 Total of Balance Sheet Rs.18,50,000.

Ans:7 (i) Claims against the Company not acknowledged as debts .
(ii) Uncalled Liability on partly paid shares.
(iii) Arrears of Dividend on Cumulative preference shares.

Ans:8 Non-Current Assets – Building, Machinery.
Non-Current Liabilities – Share Capital , Debentures.

Ans:9 The analysis which is made to review and compare the financial statements of two or more than two
Years is called Horizontal Analysis.

Ans:10 Comparative Financial Statement.

Ans:11 The Analysis which is made to review the financial statements of one particular year only is called
Vertical Analysis.

Ans:12 Ratio Analysis.

Ans:13 (i) For company's Balance Sheet there are two standard forms prescribed under the companies Act.1956
Whereas there is no standard form prescribed under the Indian partnership Act,1932 for a partnership
Firms balance sheet.
(ii) In case of a company's Balance sheet previous years figures are required to be given whereas it is
not so in the case of a partnership firms balance sheet.

Ans:14 (i) Uncalled Liability on share partly paid up .
(ii) Arrears of fixed Cumulative Dividend.

Ans:15 Balance of a Company is prepared ' as at a particular date ' .

Ans:16 Part I of Schedule VI to the Companies Act.1956.

Ans:17 Analysis of financial statements is affected from the limitation of window dressing as companies hide
Some vital information or show items at incorrect value to portray better profitability and financial
Position of the business, for example the company may overvalue closing stock to show higher profits.

Ans:18 (i) They want to judge the present and future earning capacity of the business.
(ii) They want to judge the safety of their investment.

Ans:19 (i) Comparative Financial Statements.
(ii) Ratio Analysis etc.

Ans:20 Sales.

Ans:21 Percentage Change –
Net sale 25%
Cost of Goods sold 25%
Gross profit 25%
Indirect Expenses 87.50%
Net profit before Tax 18.05%
Income Tax 41.67%
Net Profit after Tax 5.56%

Chapter - 5

Accounting Ratios

Ans:1 Short term financial position of the business is assessed by calculating current ratio and liquid ratio.

Ans:2 (i) Payment of current liabilities.
(ii) Issue of share capital etc.

Ans:3 Sale of stock at cost price.

Ans:4 (i) because there is uncertainty whether it will be sold or not.
(ii) It will take time before it is converted into debtors' and cash.

Ans:5 Quick ratio will improve as both the liquid assets and current liabilities will decrease by the same Amount.

Ans:6 Conversion of debentures into shares.

Ans:7 Accounting ratios are calculated from financial statements, which are drawn on the basis of historical Cost as recorded in the book of accounts .

Ans:8 Total Assets to Debt Ratio.

Ans:9 Debt-Equity-Ratio.

Ans:10 $100 - 78 = 22\%$

Ans:11 No change because it will neither affect net credit sales nor average receivable.

Ans:12 Debt-equity ratio will decrease because the Long-term loans remain unchanged where as the

Shareholders funds are increased by the amount of share capital issued .

Ans:13 Purchase of goods for cash .

Ans:14 Debt equity ratio will not change as the total amount of shareholders funds will remain same.

Ans:15 Payment of current Liabilities Rs.3,00,000.

Ans:16 Net gain to shareholders Rs.60,000.

Ans:17 Closing stock = Rs.14,285.

Opening stock = Rs.35,715.

Ans:18 Stock turnover Ratio = 4 times .

Ans:19 Cost of goods sold =Rs.8,48,400.

Ans:20 Opening stock Rs. 50,000.

Closing stock Rs. 1,50,000.

Ans:21 (a) Net profit before interest Rs.14,00,000

capital employed Rs. 28,00,000

Return on investment 50%.

(b)Earning per share Rs. 4.

Chapter - 6

Cash Flow Statement

Ans:1 Cash Flow statement is prepared on cash basis of accounting but profit is calculated on accrual basis.

So cash flow statement is not a judge of profitability.

Ans:2 Under accounting standard-3(Revised).

Ans:3 Depreciation reduces the net profit without reducing the cash balance as it is a non-cash item.

Ans:4 As Operating Activities.

Ans:5 Operating Activities.

Ans:6 As Outflow under Investing Activities.

Ans:7 Give any two examples-

- (iii) Acquisition of fixed asset by issue of debentures or shares.
- (iv) Conversion of debentures into shares.

Ans:8 Classified as Financing Activities.

Ans:9 It will be operating activities in case of a finance company and investing activities in case of

Non-Financing Company.

Ans:10 (i) Operating Activities.

(ii) Investing Activities.

(iii) Financing Activities.

Ans:11 ...= Net Increase /Decrease in cash and Cash Equivalents.

Ans:12 Direct Method and Indirect Method.

Ans:13 Investing Activities Because

Ans:14 Investing Activities Because

Ans:15 Cash from Operating Activities Rs.1,03,800.

Ans:16 (i) Cash Inflow From Operating Activities Rs.80,000.

(ii) Cash Outflow on Investing Activities Rs.1,60,000,

(iii) Cash Inflow From Financing Activities Rs. 1,00,000.

XII CHEMISTRY

INDEX

Chapters Name of the Chapter

1.. Solutions

2. Electro Chemistry

3. Chemical-Kinetics

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5. General Principles and Processes of Isolation of Elements
6. p-Block Elements
7. d-and f-Block Elements
8. Co-ordination Compounds
9. Haloalkanes and Haloarenes
10. Alcohols, Phenols and Ethers
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Class - XII

Unit – 1 (Solutions)

(1 mark questions)

1. In deep sea diving, why the condition "the bends" occur?
2. How is the molarity different from the normality?
3. Why molality is considered better for expressing the concentration as compared to molarity?
4. Why "Anoxia" occurs at high altitudes?
5. What is the similarity between Raoult's law and Henry's Law.
6. What are azeotropes?
7. What are anti-freeze solutions? Give one example.

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(2 marks questions)

8. Why common salt is used to clear the snow on the roads?
9. How plasmolysis is different from hemolysis?

10. What is Van't Hoff factor? Give its value for solutes undergoing association and dissociation in solution.

11. What is Henry's law? Give its 2 limitations.

12. Differentiate Ideal and Non-ideal solutions.

13. What is relative lowering in vapour pressure? Which out of lowering in V.P. and relative lowering in V.P, is a colligative property?

14. What happened to peeled egg when dipped in water? Explain.

(3 marks questions)

15. How elevation in boiling point is a colligative property? Explain.

16. Addition of 1.286 gm of a compound to 100 ml. of benzene (density 0.879 g/ml)

lowers the freezing point from 5.51°C to 5.03°C. If K_f for benzene is 5.12 K kg/mol, calculate the molar mass of the compound?

17. Non-ideal solutions show positive and negative deviations from Raoult's law. What are these deviations and why they are caused?

Class - XII

Unit – 2 (Electro chemistry)

(1 mark questions)

1. What happens to the electrical conductance of electrolytic conductor and metallic conductor, with increase in temp.

2. What is salt bridge? Give its two functions.

3. Calculate the cell potential for the cell :

$\text{Mg(s)} \mid \text{Mg (0.1M)} \parallel \text{Cu (10 M)} \mid \text{Cu(s)}$

Given $E^\circ(\text{Cu}^{2+}/\text{Cu}) = 0.34\text{V}$, $E^\circ(\text{Mg}^{2+}/\text{Mg}) = 2.37\text{V}$

4. Why dry cell does not have an indefinite life?

5. Why primary batteries or cells are not chargeable?

6. Name the cell which were used in Apollo space programme.

7. What is the chemical formula of rust?

(2 marks questions)

8. Why does the conductivity of a solution decreases with dilution?

9. Give the importance of fuel cells over ordinary batteries.

10. Give the factors which affect corrosion.

11. Differentiate E.M.F. and potential difference.

12. Give the relation between conductivity and molar conductivity of a solution.

13. What are super-conductors? Give examples.

14. Explain the ohm's law.

25

(3 marks questions)

15. What is an electrochemical series? Give the applications of electrochemical series.

16. Give differences between electrochemical cell and Electrolytic cell.

17. Calculate the e.m.f. of the cell at 25°C

$Zn | Zn (0.01M) || Fe (0.005M) | Fe^{2+}$

$E (Zn | Zn) 0.763V$ and $E (Fe /Fe) 0.44V$

Class - XII

Unit – 3 (Chemical Kinetics)

(1 mark questions)

1. What is the significance of negative sign in case of expressing rate of reaction in

terms of reactants?

2. Why does the rate of reaction not remain constant throughout?

3. A first order reaction is found to have a rate constant, $k=5.5 \times 10^{-14} \text{ s}^{-1}$. Find the half

life period of the reaction.

4. What is first order reaction?

5. What is collision frequency and what are effective collisions?

6. A large number of colliding molecules have energy more than threshold energy for a

reaction, even then reaction is slow. Why?

7. Express the rate of the reaction :



in terms of the concentration of reactants and products.

(2 marks questions)

8. What is zero order reaction? Give example.

9. Calculate the overall order of a reaction, which has the rate expression :

$$\text{Rate} = [A]^2 [B]^3$$

2

3

$$-k[A][B]$$

10. What is the difference between order and molecularity.

11. A first order decomposition reaction takes 40 minutes for 30% decomposition.

Calculate its $t_{1/2}$ value.

12. Give differences between rate of a reaction and rate constant.

13. A reaction is of first order w.r.t. reactant A and of second order w.r.t. reactant B. How

is the rate of this reaction affected when:

(i) the conc. of B alone is increased to three times.

(ii) the conc. of A as well as B are doubled.

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14. What is half life period. Derive an expression for half life period of a first order reaction.

(3 marks questions)

15. What is rate determining step? Show that the slowest step in the mechanism of the reaction largely determines the rate of the reaction.
16. What are the factors, influencing the rate of chemical reaction? Explain.
17. Give the integrated rate expression for zero order reaction.

Unit – 4 (Surface Chemistry)

(1 mark questions)

1. How is positive adsorption differs from negative adsorption?
2. Why activated charcoal or a mixture of adsorbent is generally used in gas masks?
3. How critical temperature is related to adsorption of a gas?
4. Why a finely divided substance is more effective as an adsorbent?
5. What is Kraft temperature (T_k) and CMC.
6. What is principle of Dialysis?
7. What is the cause of Brownian movement?

(2 marks questions)

8. Define Gold number. How coagulation of gold sol is indicated by change in colour?
9. Differentiate oil-in-water (o/w type) and water-in-oil (w/o type) emulsions.
10. How oil-in-water or water-in-oil type emulsions can be identified. Give one test.
11. 40 ml of standard gold sol. needs 0.04mg of gelatin for its protection from coagulation. Calculate gold number of gelatin.
12. What are emulsions? Give their types.
13. What is Sorption? How it differs from adsorption?
14. Explain the saturation state in adsorption isotherms.

(3 marks questions)

15. (i) What is surface catalysis?
(ii) Explain the term "Activity of a catalyst" and "Selectivity of a catalyst". Give examples also.
16. What is electrophoresis? What is its significance?
17. Explain shape selective catalysis by Zeolites.

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Class - XII

Unit – 5 (General Principles and processes of isolation of elements)

(1 mark questions)

1. What is the role of depressant in froth floatation process?
2. Differentiate mineral and ore.
3. What is smelting?
4. Define the terms 'gangue' and 'flux'.
5. What is the role of silica in the metallurgy of copper?
6. Why is pine oil used in froth floatation process?
7. How is cast iron different from pig iron?
8. Give the principle of zone refining method, in refining of metals.
9. Give percentage composition of Alnico alloy.
10. What is the role of cryolite in the metallurgy of aluminium?
11. What is the role of graphite rod in the electrometallurgy of aluminium?
12. Write the name of ores of aluminium and copper.

(2 marks questions)

13. Why is aluminium used for electric cables though it is relatively less conducting than copper?
14. Every ore is a mineral but every mineral is not an ore. Comment.
15. Give two uses of each of the following metals?

(i) Zinc (ii) Iron

16. Name three main varieties of iron. Which out of them is the purest?

17. Why do blisters generally appear when molten copper is allowed to cool in bessemer converter?

18. What is the significance of leaching in the extraction of aluminium?

19. Why can alumina not be reduced by carbon?

20. Give the principle of 'magnetic separation' method of refining of metals.

21. Explain the terms :

(i) Concentration or dressing of ore

(ii) Basic flux

(iii) Pyrometallurgy or thermal reduction

(iv) Calcination

Class - XII

Unit – 6 (P-block elements)

(1 mark questions)

1. What is inert pair effect?

2. Why NCl_5 does not exist?

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3. As we go down the group the bond angle decreases as $\text{NH}_3 = 107.8^\circ$, $\text{PH}_3 = 93.6^\circ$ Explain it.

4. Ammonia has higher boiling point than phosphine. Why?

5. Which hydride of group 15 elements has lowest boiling point?

6. Give the names of three allotropes of phosphorus? Which out of these is most reactive?

7. Give one function (or use) of nitrolim ($\text{CaCN}_2 + \text{C}$)

(2 marks questions)

8. Give reactions for the manufacture of nitric acid, by Ostwald's process.
9. Why does ammonia act as a Lewis base?
10. Nitrous acid (HNO_2) acts both as an oxidising agent as well as reducing agent. How?
11. Why all the five bonds in PCl_5 are not equivalent? Explain.
12. Why conc. HNO_3 turns yellow on exposure to sunlight?
13. Why PCl_5 is known but PI_5 is not known?
14. Why pentahalides of Phosphorus are formed but penta-halides of nitrogen are not formed?

(3 marks questions)

15. (i) What are 3 isotopes of oxygen? Out of them which is radioactive?
- (ii) What are 'amphoteric oxides' and 'neutral oxides'?
16. Like all other first elements of the groups, why oxygen shows anomalous behaviour?
17. Write the structural formula of :
 H_2SO_4 , $\text{H}_2\text{S}_2\text{O}_8$, H_2SO_3

(More questions)

1. SF_6 is known but SCl_6 is not known. Why?
2. Although fluorine is the most electronegative halogen, even then it is the weakest acid among hydrogen halides. Why?
3. F_2 is better oxidising agent than Cl_2 . Explain.
4. H_2S is a gas and H_2O is a liquid. Why?
5. Why chlorine shows bleaching action?
6. H_3PO_4 is triprotic acid Or H_3PO_3 is diprotic acid. Why?
7. Why does NO_2 dimerise?
8. Why does oxygen not show +4 and +6 oxidation states like sulphur?

9. Give 2 uses of He, Ne, Ar, Kr & Xe, Rn (noble gases)

10. Why noble gases have low boiling points?

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Class - XII

Unit – 7 (d- and f-block elements)

(1 mark questions)

1. Chromium and copper have exceptionally high enthalpy values than those of their

neighbours. Why?

2. Most of the transition elements show variable oxidation states. Explain the reason.

3. Compounds containing completely filled d-orbitals or completely empty d-orbitals are generally white. Why?

4. What is crystal field splitting?

5. What is d-d transition?

6. How number of unpaired electrons in a substance are related to magnetic moment of ions (B.M.)

7. What is lanthanoid contraction?

(2 marks questions)

8. Oxygen stabilizes the highest oxidation state of a metal even more than fluorine in case of 3d transition series metals. Explain.

9. Why a green layer is formed on the surface of copper metal, if, kept in moist air.

Explain.

10. Why actinoids show large number of oxidation states?

11. Why silver is a transition metal but zinc is not? Explain.

12. Give two differences between lanthanoids and actinoids.

13. Why transition elements generally form coloured compounds?

14. Which out of $\text{Lu}(\text{OH})_3$ and $\text{La}(\text{OH})_3$ is more basic and why?

(3 marks questions)

15. Why KMnO_4 titrations are carried out only in the presence of dil H_2SO_4 .

16. Enthalpy of Zinc is the lowest (126 KJ/mol), in the series (Z=21) to (Z=30). Why?

17. (i) Calculate the spin only magnetic moment of M^{2+} (aq) (Z=27)

(ii) Which is a stronger reducing agent Cr^{2+} or Fe^{2+} and why?

(More questions)

1. Why Cu^+ ion is not stable in aqueous solution?

2. What happens when $\text{K}_2\text{Cr}_2\text{O}_7$ is heated with NaCl and H_2SO_4 ?

3. How the colour of $\text{K}_2\text{Cr}_2\text{O}_7$ solution depends on the PH of solution. Explain.

4. Give the structure of $2-$

4CrO and $2-$

27CrO ions.

5. Of the ions Co^{2+} , Sc^{3+} and Zn^{2+} , which one will give coloured aqueous solutions and

how will each of them respond to a magnetic field and why?

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Class - XII

Unit – 8 (Co-ordination Compounds)

(1 mark questions)

1. What are co-ordination compounds? Give example.

2. What are double salts? Give example.

3. Give one difference between structural and stereo-isomerism.

4. Define the terms 'Co-ordination sphere' and 'co-ordination number'.

5. What are ambidentate ligands? Give example?

6. What are weak-field and strong-field ligands?

7. What are low spin complexes and high-spin complexes?

8. Give IUPAC names of the following co-ordinate compounds :-

(i) $2 [4] K HgI$

(ii) $[() ()] 3 3 2 3 3 Cr NH H O Cl$

9. (iii) $Na [Fe(CN) NO] 2 5$

(iv) $[()] 3 4 4 Cu NH SO$

10. (v) $[()] 4 Ni CO$

(vi) $[()] 4 Au CN -$

11. Calculate the oxidation no. of central metal atom in $[()] 3 -$

$2 4 3 Fe C O$ and $[()] 2 +$

$3 6 Ni NH$

12. Why geometrical isomerism is not shown by complexes with coordination number 4

having tetrahedral geometry?

(2 marks questions)

13. Predict the number of unpaired electrons in the square planar

$[Ni(CN)] ion 2 -$

4

14. Why $[()] . 2$

$4 Ni CN sol -$ is colourless but $[()] 2 +$

$2 6 Ni H O$ solution is green?

15. Explain with the help of valence bond theory, that $[()] 4 Ni CO$

is diamagnetic and

tetrahedral.

16. $[()] 3 -$

$6 Fe CN$ is weakly paramagnetic while $() 4 -$

$6 Fe CN$ is diamagnetic. Explain.

17. Give biological importance of co-ordination compounds by giving 2 examples.

18. How crystal field theory explains the colours of transition metal complexes?

19. NH_3 readily form complexes but

NH_4^+ does not. Why?

20. Draw the geometrical isomers of $[Pt(NH_3)_3(CO)_3]$

21. Explain linkage isomerism by giving one example.

Class - XII

Unit – 9(Haloalkane and Haloarenes)

(1 mark questions)

1. Why fluorination of hydrocarbons with F_2 gas occurs explosively?
2. Write the major product of the reaction of Alcohol with $AgCN$.
3. Give 2 uses of Freon.
4. Give the name of the reaction, in which only haloarenes are treated with sodium, forming diaryls.
5. Why the boiling points of chlorides, bromides and iodides are considerably higher than those of the hydrocarbons of comparable molecular mass?
6. What is Kharasch effect or peroxide effect?
7. Give 1 test for detection of unsaturation (double or triple bond) in an organic molecule.

(2 marks questions)

8. Explain Finkelstein reaction.
9. Bromoalkanes can be easily prepared by refluxing the silver salts of a fatty acid.
Name and explain the reaction.
10. Explain the stability of the haloalkanes having the same alkyl group.
11. In the formation of alkenes, dehydrohalogenation is classified as b-elimination

reaction. Explain.

12. According to Saytzeff's rule, show saytzeff's elimination in case of haloalkanes.

13. (i) What is ambident nucleophile.

(ii) Give 'Williamson Synthesis' reaction.

14. Explain the reactivity of alkyl halides towards SN1 reactions.

(3 marks questions)

15. How haloarenes are prepared from diazonium salts. Explain, by giving names of the reactions.

16. For isomeric alkyl halides, the boiling points decrease with branching. Explain.

17. Give the uses and environmental effects of Freon/DDT/Iodoform.

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Class - XII

Unit – 10 (Alcohols, Phenols and Ethers)

(1 mark questions)

1. Solubility of alcohols in water decreases with increase in molecular mass of the alcohol. Why?

2. Why primary alcohols are the strongest acids and tertiary the weakest?

3. What is coupling reaction?

4. Give 2 uses of ethanol/methanol.

5. Why boiling points of ethers are much lower than those of the isomeric alcohols?

6. How will you distinguish between 1-phenylethanol and 2-phenylethanol. Give reaction for the test.

7. Write the chemical equation for the preparation of Ethoxybenzene.

(2 marks questions)

8. Why do phenols not give protonation reactions readily?

9. What is 'rectified spirit' and 'absolute alcohol'.

10. (i) Name one reagent which is used for the distinction of primary, secondary and tertiary alcohols.

(ii) How will you know whether a given OH group is alcoholic or phenolic in nature!

11. How will you synthesise salicylic acid from phenol?

12. Why are Grignard reagents soluble in ether but not in benzene?

13. Describe the 'Kolbe's reaction'.

14. Discuss the electrophilic substitution reactions in aromatic ethers.

(3 marks questions)

15. Why alcohols act both as nucleophiles as well as electrophiles while phenols usually act as nucleophiles only? Show the reaction for both.

16. Phenols are stronger acid than alcohols. Explain.

17. (i) Sodium metal can be used for drying diethyl ether, but not for an alcohol.

(ii) How will you convert chlorobenzene to picric acid.

Class - XII

Unit – 11 (Aldehydes, Ketones and Carboxylic acids)

(1 mark questions)

1. Carbonyl compounds mainly show nucleophilic addition reactions. Why?

2. Why it is necessary to control the pH during the reaction of aldehydes and ketones

with ammonia derivatives?

3. Formic acid is stronger acid than acetic acid. Why?

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4. The bond length of $>C=O$ in carboxylic acid is slightly larger than that in aldehydes

and ketones. Why?

5. Why p-nitrobenzoic acid is stronger than benzoic acid?

6. How will you convert an acid into an ester without using an alcohol.

7. Out of p-chlorobenzoic acid and p-nitrobenzoic acid which is stronger and why?

8. Why are aldehydes more reactive than Ketones?

9. Give the IUPAC name of the following compound.

10. Give a suitable example of Hell-Volhard Zelinsky reaction.

11. How can you distinguish an alcohol and a carboxylic acid.

12. How would you obtain Acetone from acetic acid.

(2 marks questions)

13. Show reduction of aldehyde/ketone by 'clemmensen reduction'.

14. How will you convert acetophenone to benzoic acid.

15. Benzaldehyde is less reactive than acetaldehyde towards nucleophilic addition

reactions. Explain.

16. Formaldehyde gives cannizzaro reaction whereas acetaldehyde does not. Explain.

17. Why acetaldehyde gives aldol condensation, while formaldehyde does not. Explain.

18. Give a chemical test to distinguish between

(i) acetophenone and benzophenone

(ii) Ethanal and propanal

19. Give one colour test to distinguish an aldehyde and a ketone.

20. How is benzoic acid prepared from :-

(i) Toluene (ii) Benzaldehyde

21. Why aromatic acids are solids but acids of acetic acid group are mostly liquids?

Class - XII

Unit – 14 (Organic Compounds Containing Nitrogen)

(1 mark questions)

1. Why amines have lower boiling points than those of alcohols or carboxylic acids?

2. Why alkylamines are more basic than ammonia?

3. Which test can be used to distinguish between primary amines from secondary and tertiary amines? Name the reaction also.

4. What is 'diazotisation'?

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5. Why tertiary amines do not undergo acylation?

6. Why do amines react as nucleophiles?

7. Give a chemical test to distinguish between aniline and N-methylaniline.

8. Aromatic primary amines cannot be prepared by Gabriel phthalimide synthesis. Why?

9. How will you convert Benzene into aniline?

10. Account for the following :

(i) pK_b of aniline is more than that of methylamine.

Or

(ii) Diazonium salts of aliphatic amines are less stable than those of aromatic amines.

Or

(iii) Aliphatic amines are more basic than arylamines.

11. Why tertiary amines are more basic than primary amines?

12. Lower aliphatic amines are soluble in water but higher amines are insoluble in water.

Why?

(2 marks questions)

13. N-methylaniline is a stronger base than aniline and N, N-dimethyl aniline is even stronger than N-methylaniline. Explain.

14. Explain exhaustive alkylation.

15. Explain Hoffmann's elimination reaction.

16. Explain Schotten Baumann reaction.

17. Explain Libermann's nitroso reaction.

18. Give 1 test to distinguish ethylamine and aniline.

19. How will you convert Benzamine to benzoic acid.

20. How will you convert nitrobenzene into phenol.

21. Aniline does not undergo Friedel crafts alkylation. Explain.

(More questions)

1. Give one chemical test to distinguish between methylamine and dimethylamine.

2. In aromatic electrophilic substitution reactions, aniline on nitration gives a substantial amount of m-nitroaniline, although amino group is o- and p-directing.

3. Explain the Hoffmann mustard oil reaction.

4. Compare the basic strength of aniline and ethylamine.

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Class - XII

Unit – 13 (Biomolecules)

(1 mark questions)

1. What is muta-rotation?

2. Why sucrose is much useful for preserving foods such as Jams and Jellies, but glucose

is not useful?

3. What are non-reducing sugars?
4. Why do dentists caution you not to eat candy?
5. Explain the term 'Zwitter ion'.
6. What is isoelectric point?
7. What is Ninhydrin test?
8. Define the term ' α -helix'.
9. What is hypervitaminosis?
10. Give the chemical name of vitamin A/B1/B2/C
11. Explain the disease 'phenyl-ketone urea', which is an enzyme deficiency disease.
12. Name the vitamin, which helps in healing of cuts and wounds.

(2 marks questions)

13. What are the hydrolysis products of sucrose and lactose?
14. Give 4 structural differences between DNA and RNA.
15. Explain 'DNA fingerprinting'.
16. Give the relation of nucleosides, nucleotides and nucleic acids.
17. What are the deficiency diseases of vitamins :
A, B1, C, D, E, K
18. Name the enzymes which convert :-
 - (i) Sucrose to Glucose and fructose
 - (ii) Maltose to Glucose
 - (iii) Starch to Glucose
 - (iv) Glucose to Alcohol
19. Why Vitamin C cannot be stored in our body?
20. The two strands in DNA are not identical but are complementary. Explain.
21. Name the four bases present in DNA. Which one of these is not present in RNA?

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Class - XII

Unit – 14(Polymers)

(1 mark questions)

1. What is the difference between natural and synthetic polymers?

Give 2 examples of each.

2. What are biopolymers?

3. Explain vulcanization.

4. What is the basic difference between thermosetting polymers and thermoplastic polymers?

5. What are cross linked polymers? Give one example.

6. What is the difference between nylon-6 and nylon-66.

7. How can you differentiate addition and condensation polymerisation?

8. All polymers are macromolecules but all macro-molecules are not polymers.

Comment upon it.

9. How natural rubber is prepared from Isoprene?

10. Differentiate LDP and HDP

11. Give 2 uses of LDP and HDP each.

(2 marks questions)

12. How Buna-S is obtained.

13. What are biodegradable polymers?

14. Distinguish between homopolymer and copolymer.

15. Write chemical equation for the preparation of polyvinyl chloride.

16. What is the difference between copolymer and homopolymer?

17. How is bakelite made and what is its major use.

18. How polyacrylonitrile (PAN) is prepared?

19. How Buna-N is obtained?

20. What are the monomer units, for preparing PHBV.

21. How nylon-2-nylon-6 is obtained.

Class - XII

Unit – 15 (Chemistry in everyday life)

(1 mark questions)

1. What is chemotherapy?
2. Name a substance which can be used as an antiseptic as well as disinfectant.
3. What are food preservatives?
4. Name 2 sweetening agents used in the preparation of sweets for a diabetic patient.
5. How are synthetic detergents better than soaps.
6. Why do we require artificial sweetening agents?

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7. What are the main constituents of dettol?
8. What is the role of Bithional in toilet soaps?
9. What are antipyretics? Give example.
10. What is the role of an antacid?
11. Define 'tranquillizer'.
12. What are 'antihistamines'?

(2 marks questions)

13. How Aspirin drug helps in prevention of heart attack.
14. Briefly discuss the cleansing action of detergents.
15. Without consulting the doctors, why medicines should not be taken?
16. Define 'analgesics'. Briefly discuss the 2 categories of analgesics.
17. What is tincture of iodine? What is its use?
18. How do antiseptics differ from disinfectants.
19. Define the following with one example in each case.
(i) Antimalarials (ii) Antimicrobials
20. Mention one use of following drugs :

(i) Ranitidine (ii) Aspirin (iii) Valium (iv) Chloramphenicol.

21. What are neutral detergents? Give example.

Class - XII

Solid State

Marks division 2 Marks 3 Marks Total : 5 marks

Two Marks Questions

1. What are Crystalline solids? Explain with suitable examples.

2. Why Crystalline solids are called long range order solids?

3. Give properties of Crystalline solids.

4. What are Amorphous solids? Explain with suitable examples.

5. Why amorphous solids are called short range order solids?

6. What are crystallites? Explain.

7. What are anisotropic and isotropic solids? Give examples.

8. What are molecular solids?

9. Give characteristics of solids.

10. Why are solids rigid and have specific shape?

11. Why do solids have a definite volume?

12. Why is glass considered as a super cooled liquid?

13. Refractive index of a solid is observed to have the same value along all directions.

Comment on the nature of this solid.

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14. Stability of a crystal is reflected in the magnitude of its melting point comment.

15. Distinguish between tetrahedral and octahedral void.

16. (i) Why Frenkel defect does not change the density of AgCl Crystal.

(ii) Differentiate substitutional and interstitial solids.

17. Distinguish between hexagonal close packing and cubic close packing.

18. Write the difference between amorphous and Crystalline solids.

19. Distinguish between crystal lattice and Unit cell.
20. Distinguish between hexagonal close packing and cubic close packing.
21. Will hcp and ccp for a given element have same density?
22. What is radius ratio and what is its significance?
23. According to band theory explain with diagram difference between a conductor and an insulator and a semi conductor.
24. Which have more entropy, real crystal or ideal crystal and why?
25. Why does zinc oxide exhibit enhanced electrical conductivity on heating?
26. Account for the following (i) Frenkel defects are not found in alkali metal halides (ii) Schottky defects lower the density of related Solids. (ii) Impurity doped Silicon is a semiconductor.
27. Difference between Frenkel and Schottky defects.
28. Define Ferromagnetism, paramagnetism, ferrimagnetism, antiferromagnetism, Fcentres, diamagnetism.
29. How will you calculate the no. of atoms in a Unit cell. Discuss by taking different examples.
30. What do you know about Stoichiometric defects, non-stoichiometric defects and impurity defects?
31. Conductivity of NaCl is enhanced by the introduction of SrCl₂ as the impurity. Why?
32. Covalent bonding occur in both molecular and covalent network solids but these two types of solids differ greatly in their hardness and m.pt. Why.

33. Discuss the classification of Crystalline Solids with example and also discuss their properties.

34. Give properties of Crystalline solids and amorphous solids.

35. What is the effect of temp. on electrical conductivity of conductors and semiconductors.

36. Define and explain *n*-type and *p*-type semiconductors.

37. What are 12-16 and 13-15 compds? Explain.

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Class - XII

***p*-Block Elements**

One mark questions.

1. NH₃ acts as a lewis base how?
2. NH₃ is liquid where as PH₃ is a gas why?
3. Nitrogen exists as 'N₂' where as phosphorous exists as P₄ why?
4. How ammonia acts as a solvent?
5. Give structures of N₂O₅ and N₂O₃.
6. Why white phosphorous is stored under water?
7. Why O₃ acts as a mild bleaching agent?

Two marks questions.

8. PCl₅ is known but NCl₅ is not known. Why.
9. NH₃ acts as a complexing agent how? Give suitable example.
10. Ionization enthalpy of nitrogen is more than oxygen. Why?
11. Give chemical reaction in support of the Statement that all the bonds in PCl₅ molecule are not equivalent.
12. Nitric oxide (NO) is paramagnetic in the gaseous state but diamagnetic in the liquid and solid states. Why?
13. Give structure of H₃PO₃ and H₃PO₄ and its basicity.
14. Bi⁺⁵ is a strong oxidising agent why?

15. Explain why 'N' and 'Bi' do not form pentahalides while phosphorous does?
16. The electron gain enthalpy with negative sign for oxygen (-141 KJ mol⁻¹) is less than that of Sulphur (-200 KJ mol⁻¹) Why?
17. (i) SF₆ is known but SH₆ is not known. Why?
(ii) OF₂ should be called oxygen difluoride and not flouride oxide. Why?
18. (i) SF₄ undergoes hydrolysis but SF₆ does not. Why?
(ii) Among halogens 'F₂' is the strongest oxidising agent why?
19. Bond energy of 'F₂' is less than 'Cl₂'. Why?
20. Interhalogen compounds are more reactive. Why?
21. Halogens show some specific colours. Why?
22. Bleaching action of chlorine is permanent but that of Sulphur trioxide is temporary. Why?
23. 'F' is more electronegative than 'I', even then HF has lower acidic strength as compare to HI. Why?
24. Which is more acidic and why?
HClO, HIO, HBrO
25. HClO₄ is a stronger acid than H₂SO₄. Why?
26. Xenon does not form flourides such as XeF₃ and XeF₅. Why?
27. Why do noble gases form compounds with flourine and oxygen only?
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28. What prompted Barlett to the discovery of noble gas compounds?
29. Cl F₃ exist but FCl₃ does not. Why?
30. Why xenon forms maximum no. of compounds where as 'He' and 'Ne' not?

31. Noble gases are inert. Why?
32. Fluorine exhibits only - 1 oxidation state whereas other halogens exhibit +1, +3, +5 and +7 oxidation states. Explain.
33. Halogens have maximum negative electron gain enthalpy why?
34. Why are pentafluorides more covalent than trihalides?
35. How O₃ reacts with I₂, KI, ZnS, Sb, S₈ and P₄?
36. How does SO₂ reacts with Cl₂, KMnO₄, KIO₃, SnCl₂?
37. How is Sulphuric acid manufactured.
38. How is HNO₃ manufactured.
39. How does H₂SO₄ reacts with 'C', C₁₂H₂₂O₁₁, CH₃CH₂OH.
40. How Cl₂ reacts with Ca(OH)₂ and NaOH.

Class - XII

d- and f-block Elements

Total – 30 marks

One mark questions.

1. Why Zn²⁺ Salts are coloured where as Ni²⁺ Salts are colourless.
2. Mn(II) show maximum paramagnetic behaviour amongst the bivalent ions of the 1st transition series?
3. The melting and boiling points of Zn, Cd and Hg are low. Why?
4. Which out of La(OH)₃ and Lu(OH)₃ is more basic and why?
5. Chromium is a typical hard metal where as mercury is a liquid. Why?
6. Why 2+ Sm, 2+ Eu and Yb²⁺ ions in solutions are good reducing agents but an aqueous solution of Ce⁴⁺ is a good oxidising agent?
7. The +3 oxidation states of 'La', 'Gd', 'Lu' are especially stable. Why?

Two marks questions

8. (i) Give structure of Mn₂O₇

(ii) First ionization enthalpy of 'Zn', 'Cd' and 'Hg' is very high. Why?

9. (i) Atomic radii of the second and third transition series are almost the same

why?

(ii) What are interstitial compounds? Give example.

10. Why transition metals and their compounds are used as catalysts?

11. (i) Why 'Zn', 'Cd', and 'Hg' are not considered as transition elements?

(ii) Give structure of Cr_2O_7

2- and 2-

4 CrO ions.

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12. How is potassium dichromate prepared?

13. How does $\text{K}_2\text{Cr}_2\text{O}_7$ reacts with KI , FeSO_4 , SO_2 , NaNO_2 ?

14. How is KMnO_4 manufactured?

Three mark questions

15. How does KMnO_4 reacts with $\text{CH}_2=\text{CH}_2$, H_2S , KNO_2 , H_2O_2 , $\text{CH}_3\text{CH}_2\text{OH}$?

16. What is lanthanoid contraction? What is its reason and what are its consequences?

17. Differentiate Lanthanoids and Actinoids.

18. Why is the separation of Lanthanoids more difficult?

19. Chemistry of all the Lanthanoids are quite similar. Why?

20. Write the chemistry of chromyl chloride test.

21. Why is Eu^{2+} more stable than Ce^{2+} ?

22. Why Lanthanoids are uniformly trivalent?

23. Explain that transition elements form alloys.

24. Why do transition elements form a number of complexes?

25. Why do transition elements form, coloured compounds?

26. Which is a stronger reducing agent Cr^{2+} and Fe^{2+} and Why?

27. Why are transition metals weaker reducing agents as compared to S-block elements?

28. Why do Zr and Hf exhibit similar properties?

29. What is the action of heat on KMnO_4 ?

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Class - XII

Co-ordination Compounds

Total – 30 marks

1. Write IUPAC names of the following compounds.

(i) $[\text{Co}(\text{NO})_2(\text{NH}_3)_4]\text{Cl}_2$ (ii) $[\text{CoCl}(\text{NO})_2(\text{NH}_3)_4]\text{Cl}$

(iii) $[\text{Pt}(\text{NH}_3)_2(\text{Cl})_2]$ (iv) $[\text{Cu}(\text{CN})_2]^{2-}$ 2 marks

2. Write down the formulae of the following co-ordination compounds.

(i) hexaqua iron (II) sulphate

(ii) potassium hexacyano ferrate (III) 2 marks

3. How will you distinguish between the following isomer pairs?

(i) $[\text{Co}(\text{NH}_3)_4(\text{Br})(\text{SO}_4)]$ (ii) $[\text{Co}(\text{NH}_3)_5(\text{SO}_4)]\text{Br}$

4. $[\text{Ti}(\text{H}_2\text{O})_6]^{3+}$ is coloured while $[\text{Ti}(\text{H}_2\text{O})_6]^{4+}$

is colourless why?

5. $[\text{Fe}(\text{CN})_6]^{4-}$

is diamagnetic where as $[\text{Fe}(\text{CN})_6]^{3-}$

is weakly paramagnetic. Why.

Two Marks questions

6. $[\text{Ni}(\text{CO})_4]$ has tetrahedral geometry where as $[\text{Ni}(\text{CN})_4]^{2-}$

has square planer. Why?

7. $[\text{FeF}_6]^{3-}$

and $[\text{Fe}(\text{CN})_6]^{3-}$

have different magnetic properties. Explain why?

8. $[\text{K}_4\text{Fe}(\text{CN})_6]$ and $[\text{K}_3\text{Fe}(\text{CN})_6]$, which out of these two is more stable and why?

9. Illustrate linkage and ionisation isomerism with example.

10. What is co-ordination isomerism? Explain with example.
11. Explain the differences between weak field and strong field ligand?
12. What are inner and outer orbital complexes?
13. What are 't_{2g}' and 'e_g' orbitals explain?
14. Discuss hydrate isomerism with example.

Three Marks questions

15. How are ligands classified as unidentate, tridentate and polydentate ligands? Give proper examples.
16. How is $[()]^{2-}$ $4 Cu CN$ formed? Discuss its structure, hybridisation and magnetic behaviour.
17. Write a short note on optical isomerism in co-ordination compounds.

Class - XII

Halo alkanes and Haloarenes

Q.No. 1-7 = 1 Mark; 8-14 = 2 Marks; 15-17=3 Marks **Total – 30 marks**

1. Why the boiling point of an alkyl halide is higher than that of corresponding alkane?
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2. Explain why thionyl chloride is preferred for preparing alkyl chlorides from alcohols.
 3. Ethyl chloride is a gas, whereas ethyl iodide is a liquid at room temp. Explain.
 4. Why is chloroform stored in dark brown bottles?
 5. Which compound gives iodoform test.
 6. Give example of Wurtz-fitting reaction.
 7. Write the structural formula and IUPAC name of BHC.

8. How will you obtain haloalkanes from hydrocarbons by free radical halogenation?
9. How will you prepare haloalkanes from alcohols? Give mechanism.
10. Give Hunsdiecker reaction and Swarts reaction.
11. How will you explain the relative reactivity of haloalkanes?
12. Explain why alkylhalides show nucleophilic substitution reactions?
13. How will you prepare haloarenes from aromatic hydrocarbons? Give two examples.
14. The boiling points of isomeric dihalobenzene are nearly the same but their melting points are quite different. Why?
15. How will you explain the low reactivity of haloarenes as compared to halo alkanes?
16. Account for the following.
 - (i) Vinyl chloride is less reactive than ethyl chloride.
 - (ii) Benzyl chloride is more reactive than chlorobenzene towards nucleophilic substitution reaction.
17. (i) Discuss the stereo chemistry of SN2 reaction.
(ii) Discuss the stereo chemistry of SN1 reaction.

Class - XII

Halo alkanes and Haloarenes

More questions :

1. Treatment of alkyl halides with alc. AgNO₂ give mainly nitroalkanes while that with aq. NaNO₂ give mainly alkyl nitrites explain. Why?
2. Alkyl halides with aq. KOH give alcohols but with alc. KOH give alkenes why?

3. Why alkyl halides are immiscible in water although they are polar.
4. Why the dipole moment of chlorobenzene is lower than that of cyclohexyl chloride?
5. Why aryl halides are less reactive than alkyl halides?
6. Acidic strength of phenols is more than alcohols why?
7. What are ambident nucleophiles? Explain with example.
8. Out of HCl and SOCl₂ which is preferred for converting ethanol into chloroethane and why?
9. Why is dehydrohalogenation reaction in haloalkanes termed as β-elimination?
10. How do products differ when ethyl bromide reacts separately with KCN and AgCN?
11. Why does electrophilic substitution take place at Ortho and Para position in haloarenes?

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Class - XII

Alcohols, Phenols and Ethers

Q.No. 1-7=1 Mark; 8-14= 2 Marks; 15-17=3 Marks Total = 30 Marks

1. Why can't rectified spirit be converted into absolute alcohol by simple distillation?
2. Give two important uses of methanol.
3. Why are ethers insoluble in water?
4. How will you obtain alcohols from haloalkanes?
5. C₂H₅OH has higher boiling point than C₂H₅Br. Why?
6. How will you distinguish between ethanol and methanol?
7. How is methanol manufactured?

8. How will you distinguish between 1o, 2o & 3o alcohols by time test?
9. What is meant by hydroboration – oxidation reaction? Give example.
10. What is Fries rearrangement reaction?
11. Boiling point of O-nitrophenol is less than that of p-nitrophenol. Explain.
12. Phenols are more acidic than alcohols. Explain.
13. Give two reactions showing acidic nature of phenol.
14. Alcohols are easily protonated as compare to phenols. How?
15. (i) Dipole moment of methanol is higher than that of phenol. Why?
(ii) O-nitrophenol is more acidic than m-nitrophenol. Why?
16. (i) Diethyl ether is less soluble in water. Why?
(ii) Ethers are used as solvent in industry. Why?
17. Preparation of ethers by acid-catalysed dehydration of secondary and tertiary alcohols is not suitable method. Give reason.

More questions :

1. How will you distinguish between 1o, 2o and 3o alcohol by time test and victor Meyers method?
2. Why alcohols are weaker acids than water?
3. Out of halogen acids HI is more reactive with alcohols than HBr and HCl justify.
4. Out of phenol and benzene, which is more easily nitrated and why.
5. Arrange following compd. in increasing order of their acid strength and explain. Why it is so.

Propan-1-ol, 2,4,6- trinitrophenol, nitrophenol, 3,5- dinitro phenol, phenol, 4-methyl phenol.

6. Explain why dehydration of alcohols to form alkenes is always carried out with conc.

H₂SO₄ and not with conc. HCl.

7. Account for the fact that unlike phenol, 2,4- dinitrophenol and 2,4,6- tri-nitrophenol

are soluble in aq. sodium carbonate Sol.?

8. Why di-tert. butyl ether cannot be prepared by Williamson's Synthesis.

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9. HI is a better reagent than HBr for cleavage of ethers.

10. Ethers possess a dipole moment even if the alkyl groups in the molecule are identical.

Why?

11. Why a non symmetrical ether is not prepared by heating mixture of R-OH and R₁-OH

in acid?

12. While separating mixture of Ortho and para nitrophenols by steam distillation, name

the isomer which is more volatile.

13. Why Ortho nitrophenol is more acidic than ortho-methyl phenol?

14. Why phenol has smaller dipole moment than methanol?

15. Why alcohols are easily protonated as compare to Phenols?

16. Why is that tert. alcohol show greater reactivity towards hydrogen halide than Sec.

and prim. alcohol.

17. Explain how -OH gr. in benzene ring activates it towards electrophilic substitution

reaction.

18. Compare the acidic strength of Prim., Sec. and tert alcohols.

19. How does the nitration of Phenol with dil HNO_3 differ from nitration of Phenol with

conc. HNO_3 in the presence of H_2SO_4 .

20. Explain why Ethyl alcohol and dimethyl ether are isomeric but the b. pt. of ethyl

alcohol is higher?

21. C-O-C bond angle in ethers is higher than H-O-H in H_2O though 'O' is sp^3 hybridised

in both the case.

22. Phenyl methyl ethers react with HI to give phenol and methyl iodide and not

Iodobenzene and methyl alcohol. Why?

Class - XII

Aldehydes and Ketones

1. Carbonyl compds mainly show nucleophilic addition reactions. Why?

2. Draw structure of Carbonyl group and indicate the 's' and p bond and the electrophilic and nucleophilic centres.

3. Sodium bi sulphite is used for the purification of aldehydes and ketones. Explain.

4. Why do aldehydes and ketones undergo nucleophilic addition reaction?

5. Why is it necessary to control pH during the reactions of aldehydes and ketones with ammonia derivatives?

6. Why do aldehydes and ketones have high dipole moments?

7. Why benzaldehyde is less reactive than aliphatic aldehyde ?

8. Why pK_a of ethanoic acid is higher than pK_a of methanoic acid?

9. Why Carboxylic acids do not give tests of carbonyl or hydroxyl group?
10. Why does HCOOH does not give HVZ reaction, but CH₃COOH gives.
11. Chloroacetic acid is Stronger than acetic acid and why?
12. Formic acid is stronger acid than acetic acid why?
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13. In the preparation of an ester by the reaction of carboxylic acid and alcohol, ester is distilled as fast as it is formed. Why?
14. Which one is stronger acid and why?
or
15. Fluoroacetic acid is stronger acid than chloroacetic acid why?
16. Trichloro acetic acid is stronger acid than dichloro acetic acid than acetic acid why?
17. The bond length of >C=O in carboxylic acid is slightly larger than that in aldehydes and ketones why?
18. Why p-nitrobenzoic acid is stronger acid than benzoic acid?
19. The b.pts of acid anhydrides are higher than that of corresponding carboxylic acids from which they are formed & why?
20. Why p-Nitrobenzoic acid is stronger than benzoic acid?
21. Benzoic acid is stronger acid than acid and why?
22. How will you convert an acid into an ester without using an alcohol?
23. Out of methanoic acid and ethanoic acid, which has higher pK_a value and why?
24. Acid hydrolysis of esters is of reversible nature, while alkaline hydrolysis is irreversible? Why.

25. Fluorine is more electro negative than chlorine, but p-fluoro benzoic acid is a weaker acid than p-chlorobenzoic acid.
26. Although phenoxide ion has more no. of resonating structures than carboxylate ion, carboxylic acid is stronger acid than phenol. Why?
27. Acetic acid can be halogenated in the presence of red P and Cl₂ but formic acid cannot be halogenated in the same way. Explain?
28. Out of p-chloro benzoic acid and p-nitrobenzoic acid which is stronger and why?
29. Most aromatic acids are solids while acetic acid and other acids of this series are liquids why?
30. Discuss structure of Carboxylic acids. How do you account for acidic character of Carboxylic acids?
31. Formaldehyde gives cannizzaro's reaction whereas acetaldehyde does not. Why.
32. p-hydroxy benzoic acid is less acidic than benzoic acid where as ortho hydroxy benzoic acid is about 15 times more acidic than benzoic acid. Why?
33. Hydrazones of acetaldehyde are not prepared in highly acidic medium. Why?
34. Why aldehydes are more reactive than ketones?

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Class - XII

Nitrogenous Compds

1. Electrophilic substitution in case of aromatic amines takes place more readily than benzene. Why?

2. Why is aryl diazonium ion more stable than alkyl diazonium ion?
3. It is difficult to prepare pure amine by ammonolysis of alkyl halides.
4. Why is aniline less basic than ethylamine?
5. Although amino group is O- and p-directing in aromatic electrophilic substitution reactions, aniline on nitration gives a substantial amount of m-nitroaniline.
6. How is indicator methyl orange obtained?
7. Sulphanilic acid is soluble in dil. NaOH but not in dil HCl. Explain.
8. p-methoxy aniline is a stronger base than aniline but p-nitroaniline is a weaker base than aniline. Explain.
9. CH_3CONH_2 is a weaker base than $\text{CH}_3\text{CH}_2\text{NH}_2$ why.
10. Aniline does not undergo Friedel - Crafts reaction why?
11. Arrange the following in increasing order of their basic strength and give reason.
 CH_3NH_2 , $(\text{CH}_3)_2\text{NH}$ and $(\text{CH}_3)_3\text{N}$
 $\text{C}_2\text{H}_5\text{NH}_2$, $(\text{C}_2\text{H}_5)_2\text{NH}$ and $(\text{C}_2\text{H}_5)_3\text{N}$
12. Why aromatic primary amines cannot be prepared by Gabriel phthalimide Synthesis?
13. Why does CuSO_4 solution give deep blue colour with MeNH_2 ?
14. Why are amides partially neutral in nature?
15. Explain the observed pK_b order of Me_2NH , MeNH_2 and Me_3N .
16. How do cyanides and isocyanides differ in their structure?
17. Which is more basic aliphatic amines or ammonia and why?
18. Amides are weaker bases than amines why.
19. Why primary amines have higher boiling point than tertiary amines?
20. Why are aromatic amines weaker bases than aliphatic amines?

21. Differentiate between alkyl cyanides and isocyanides.
22. Why is nucleophilic substitution of p-nitrochloro benzene easier than that of chlorobenzene?
23. Why aniline is a weaker base than cyclohexyl amine. Explain.
24. Aniline has a higher b. pt. than chlorobenzene. Why?
25. Why is aniline soluble in dil. HCl while nitrobenzene is insoluble in dil. HCl?
26. Is it possible to prepare aniline by Gabriel Phthalamide Syn?
27. Ethylamine is soluble in water where as aniline is insoluble. Why?
28. In trimethyl amine, the bond angle is 108° . Explain.

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Class - XII

Bio molecules

Q.No. 1-7=1 Mark; 8-14= 2 Marks; 15-17=3 Marks Total = 30 Marks

1. What is biochemistry?
2. What are biochemicals?
3. What are disaccharides? Give one example.
4. What is meant by inversion of Sugar?
5. What is invert sugar?
6. What products are obtained when lactose is hydrolysed?
7. What is muta-rotation?
8. Draw the structure of cellulose.
9. Glucose is soluble in water but cyclohexane or benzene is not soluble in water. Why?
10. How is glucose prepared?
11. How does glucose react with tollen's reagent?
12. Discuss the evidence leading to cyclic structure of D(+) glucose.

13. Explain the main differences between α -glucose and β -glucose.
14. Discuss structure of fructose.
15. (i) What are amino acids? Describe Zwitter ion structure.
(ii) Explain isoelectric point of amino acids.
16. What is peptide linkage? Give differences between polypeptide and protein.
17. Explain the tertiary structure of proteins. What type of bonding is responsible for their structures?

More questions.

18. What is the effect of denaturation on the Structure of proteins?
19. What do you mean by denaturation of proteins?
20. What are enzymes and co-enzymes? Mention various steps involved in an enzyme catalysed reaction.
21. Differentiate between primary and secondary structure of proteins.
22. Differentiate between nucleoside and nucleotide.
23. What are nucleic acids? Name the types of bases present in these nucleic acids.
24. Differentiate between ribose and de-oxyribose.
25. Two strands of DNA are not identical but are complementary comment.
26. Explain the term mutation in DNA.
27. Give differences between RNA and DNA.
28. Describe briefly transcription and translation.
29. What is genetic engineering? What are its aims?
30. What is meant by mutation? What are the consequences of mutation?

Bio molecules

More questions.

1. Write the structure of adenosine triphosphate indicating clearly the energy rich bonds.

How does this molecule form the source of energy?

2. What is a peptide bond? Give an example.

3. Give differences between polypeptide and proteins; fibrous and globular proteins.

4. Give difference between nucleotide and nucleoside.

5. State importance of biotechnology in daily life.

6. Give difference between enzymes and chemical catalysts.

7. What are reducing and non-reducing sugars?

8. What changes occur during digestion of a protein in humans?

9. Give functions of various types of RNA found in the cell.

10. Give difference between enzyme and co-enzyme; α -helix and β -pleated structure.

11. Give difference between primary and secondary St. of Protein.

12. Enumerate structural difference between DNA and RNA.

13. Explain muta rotation with the help of D-glucose.

14. How does DNA replicate? Describe the mechanism of replication. How is the replication responsible for preservation of heredity?

15. Comment on specificity of enzyme action. Give reason for specificity.

16. Amino acids are amphoteric in nature. Why?

17. On electrolysis in acidic sol. amino acids migrate towards cathode while in alkaline sol. these migrate towards anode. Why?

18. Write down the structures and names of the products when D-glucose is treated with acetic anhydride, hydrocyanic acid, bromine, conc. HNO_3 and HI.

19. Enumerate the rxns of glucose which cannot be explained by open chain st.
20. Amylose and cellulose are both straight chain Polysaccharides containing only Dglucose units. What is structural difference between two?
21. Which forces are responsible for the stability of α -helix? Why is it named as 3.613 helix?
22. What are complementary bases? Show H-bonding between adenine, thymine, guanine and cytosine.

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Class - XII

Polymers

Q.No. 1-7=1 Mark; 8-14= 2 Marks; 15-17=3 Marks Total = 30 Marks

1. What are homopolymers? Give one example.
2. What are copolymers? Give example.
3. Write the preparation of polypropylene.
4. Write two uses of teflon.
5. Explain the differences between Buna-N and Buna-S rubber.
6. What are the monomer units of bakelite?
7. What is vulcanisation? Why is rubber vulcanised?
8. Explain addition and condensation polymers giving one example in each case.
9. Explain the linear and cross linked polymers with example.
10. How are low density polythylene and high density polythylene manufactured?
11. Explain how do 1,3-butadiene polymerise?
12. How is teflon Synthesized?
13. Write equation for the Synthesis of polymethyl methacrylate.

14. What is the difference between nylon-6 and nylon 66?
15. How nylon 66 is synthesized? Why is it called nylon 66?
16. What is natural rubber? How is it synthesized?
17. (i) How acetylene is converted into neoprene?
(iii) How are terylene and glyptal prepared?

Class - XII

Chemistry in Everyday life

Q.No. 1-7=1 Mark; 8-14= 2 Marks; 15-17=3 Marks Total = 30
Marks

1. What is meant by chemo therapy?
2. Which forces are involved in holding the drugs to the active site of enzymes?
3. What is meant by active site and allosteric site?
4. What are antagonists and agonists?
5. What are tranquillizers? Give example.
6. Why the medicines should not be taken without consulting the doctors?
7. Why paracetamol is preferred to aspirin?
8. What is heroin? What is its chemical name?
9. What are artificial sweetening agents? Give examples.
10. What are food preservatives?
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11. (i) Why is bithionol added to soap?
(ii) Why detergents are called Soapless soaps?
12. (i) Why is the use of aspartame limited to cold foods and drinks only?
(ii) What is BHA and BHT?
13. What do you understand by Antacids?
14. Why are cimetidine and ranitidine better antacids than Sodium bicarbonate or magnesium hydroxide?

15. How do antiseptics and disinfectants differ?
16. What are antibiotics? Explain.
17. Discuss the varieties of Soaps.

PHYSICS 10+2

Unit 1 : Electrostatics

2 marks questions

1. Explain Quantisation and conservation of charge.
2. Give the properties of electric charge.
3. What is difference between charge and mass?
4. What is dielectric constant? How does force gets affected when charges are placed in vacuum?
5. What are similarities and dissimilarities between Coulomb's forces and Gravitational forces?
6. Why water has high dielectric constant?
7. Two point charges q_1 and q_2 are such that $q_1q_2 > 0$. What is the nature of force between two charges?
8. What is the effect on the electrostatic force between two charges if (a) a dielectric slab is introduced between them (b) A metal slab is introduced between them
9. What is principle of superposition of charges? What is its importance?
10. Vehicles carrying inflammable materials usually have metallic ropes touching the ground during motion, why?
11. How the mass of the body is affected on charging?
12. How many electrons are present in one coulomb of charge?
13. An electrostatic force between two charges is called central force. Why?
14. Dielectric constant of water is 80. What is its permittivity?
15. If the distance between two equal point charges is doubled and their individual charges are also doubled, what would happen to the force between them?
16. A comb run through one's dry hair attracts small bits of paper. Why? What happens, if the hair is wet or it is a rainy day?
17. Can a charged body attract another uncharged body? Explain.
18. Can two balls having same kind of charge on them attract each other? Explain.
19. A bird perches on a bare high-power line and nothing happens to the bird. A man standing on the ground touches the same line and gets a fatal shock. Why?
20. Find the ratio of the order of magnitude of electrostatic force to gravitational force.
21. What is the effect on the electrostatic force between two charges if (a) a dielectric slab is introduced between them (b) A metal slab is introduced between them
22. In a medium, the force of attraction between two point electric charges. distance d apart is F . What distance apart should these be kept in the same medium so that the force between them becomes

a. $3F$

b. $F/3$

23. How many electrons would have to be removed from or added to a penny to leave it charged with $1.0 \times 10^{-6} \text{ C}$? [Ans: 6.25×10^{12}]

24. Two point charges, q_1 and q_2 at a separation r in vacuum exert a force F on each other. What should be their separation in oil of relative permittivity 16 so that the force between them remains F only?

25. Distilled water is an insulator, but impure water is a conductor. Explain why?

26. Two equally charged identical metal spheres A and B repel each other with a force of $2.0 \times 10^{-5} \text{ N}$. Another identical uncharged sphere C is touched to A and then placed at the mid point between A and B. What is the net force on C?

27. Four point charges $+5 \text{ mC}$, $+2 \text{ mC}$, $+10 \text{ mC}$ and $+2 \text{ mC}$ are kept at the corners of a square of side 10 cm . A charge $q = +1 \text{ mC}$ is placed at its centre. Find the net force on q .

28. Calculate the distance between two protons such that the electrostatic force between them is equal to the weight of either.

29. Two point charges are 0.1 m apart and their combined charge is 9 mC . If they repel each other with a force 18 N , then calculate the magnitude of each charge.

30. Calculate the coulomb force between two alpha particles separated by a distance of $3.2 \times 10^{-15} \text{ m}$

ELECTRIC FIELD

1. Define electric field. Give its units.

2. Name the physical quantity, whose SI unit is N/C .

3. Why test is vanishingly small in defining electric field intensity?

4. What is electric dipole and dipole moment? Give the unit of electric dipole moment and its direction.

5. Does an electric dipole always experience a torque, when placed in a uniform electric field?

6. Determine the magnitude of an electric field that will balance the weight of an electron.

7. A distance of 2 m separates two point charges of $+5 \times 10^{-19} \text{ C}$ and $+5 \times 10^{-19} \text{ C}$. Find the point on the line joining them at which electric field intensity is zero.

8. A charged particle is free to move in an electric field. Will it always move along an electric line of force?

9. Electric field intensity within a conductor is always zero. Why?

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10. The electric field at a distance r from a short dipole on the axial position is E_1 and at the same distance on the equatorial position is E_2 . What is the relation between E_1 and E_2 .

11. Charge q each is placed at the corners of an equilateral triangle of side a . What is the electric field intensity at the centre of the triangle?

12. An electron and proton are free to move in an electric field. Which one will have greater acceleration? Why?

13. (a) Define electric dipole moment. (b) Derive expression for electric field

intensity of a dipole at a point on its axial line. (c) Two charges $+10\mu\text{C}$ and $-10\mu\text{C}$ are placed 5 mm apart. Determine the electric field at a point P, 15 cm away from its centre O on a line passing through O and normal axis of the dipole.

14. A proton moves through a uniform electric field of $5.01 \times 10^3 \text{ N/C}$. Calculate (a) the acceleration with which the proton is moving and (b) the time taken by the proton to cover a distance of 4.8 cm.

15. Two point charges of unknown magnitude and sign are placed certain distance apart. The electric field is zero at a point not between the two charges but at a point on the line joining them. Write two essential conditions for this to happen.

ELECTRIC POTENTIAL

1. A charge $5\mu\text{C}$ is placed at a point. What is the work required to carry 1C of charge once around it in the circle of 12 cm radius?

2. If a point charge be rotated in a circle of radius r around a charge q , what will be work done and why?

3. Establish relation between electric field and potential gradient.

4. What are equipotential surfaces? Give its uses.

5. Show that work done in moving a charge over equipotential surfaces is zero.

6. Show that electric field is always at right angle to equipotential surfaces.

7. Equipotential surfaces help us to distinguish between strong and weak fields. Explain.

8. Equipotential surfaces give the direction of electric field. Explain

9. Why two equipotential surfaces do not cross each other?

10. If electric field is zero at any point, is it necessary electric potential must be zero at that point. Explain with the help of example.

11. If electric potential is zero at any point, is it necessary electric field must be zero at that point. Explain with the help of example.

12. Calculate the electric field between two metal plates 3 mm apart connected to a 3V battery.

13. Are there points around a dipole where the electric field is not zero but potential due to it is zero?

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14. What is the amount of work done in moving a 100 nC charge between two points 5cm apart on an equipotential surface?

15. Name the Physical quantity whose SI unit is

a. newton/coulomb

b. joule/coulomb

16. Show that the work done in rotating an electric dipole of dipole moment p in a uniform electric field E by an angle θ from the equilibrium position $W = pE(1-\cos\theta)$

17. Sketch two equipotential surfaces for (a) a point charge. (b) between two plane sheets of charge.

GAUSS'S THEOREM

1. Define electric flux. Give its unit.

2. What is Gaussian surface and what is its importance?

3. What is electrostatic shielding? Why it is safe to sit inside a car during lightning?

4. A box encloses an electric dipole consisting of charge $5\mu\text{C}$ and $-5\mu\text{C}$ and of length 10 cm. What is the total electric flux through the box?
5. A sensitive instrument is to be shielded from the strong electrostatic field in its environment. Suggest a possible way.
6. A point charge of 8.86 C is placed at the centre of a cube of side 10 cm. Calculate the flux passing through its one face.
7. A point charge of 2 micro coulomb is at the centre of a cubic Gaussian surface 9cm edge. What is the net electric flux through all the surfaces of the cube?

CAPACITANCE

1. Explain the principle of capacitor.
 2. Show that the capacitance of an insulated spherical conductor is directly proportional to the radius of the spherical conductor.
 3. Why it is not possible for the sphere to have a capacity of 1F?
 4. How will the capacitance of a parallel plate capacitor be affected if (i) the area of each plate is increased (ii) the distance between the plates is increased?
 5. Show that there is loss of energy on sharing of charges by two capacitors.
 6. What is polar and non-polar dielectric? Give example for each.
 7. Why the capacitances of capacitor increase when dielectric slab is inserted between plates of the capacitor?
 8. Why does the electric field inside a dielectric decrease, when it is placed in an external electric field?
 9. On inserting a dielectric between the plates of a capacitor, its capacitance is found to increase 5 times. What is the relative permittivity of the dielectric?
- 34
- V
- Q
- V
- Q
10. An air capacitor is given a charge of $2\mu\text{C}$ raising its potential to 200V. If on inserting a dielectric medium its potential falls to 50V, what is the dielectric constant of the medium?
 11. In a parallel plate, how is the capacity affected, when without changing the charge: (i) the distance between the plates is doubled (ii) area of the plates is halved.
 12. Prove that the total energy stored in series combination of capacitors is equal to the sum of energies stored in the individual capacitors.
 13. Prove that the total energy stored in parallel combination of capacitors is equal to the sum of energies stored in the individual capacitors.
 14. Prove that energy stored per unit volume in a capacitor is given by $\frac{1}{2} \epsilon_0 \epsilon_r E^2$
- $\frac{1}{2} \epsilon_0 \epsilon_r E^2$;
- E is the electric field of the capacitor.
15. If a parallel plate capacitor of capacitance C is kept connected to a supply voltage V to just fill the space and then a dielectric slab is inserted between the plates. What will be the change in the capacitance, potential difference, the charge, electric field and the energy stored.
 16. A parallel plate capacitor of capacitance C is charged to a potential

difference V and then the battery is disconnected. Now a dielectric slab of the dimensions equal spacing between the plates is inserted between the plates. What are the changes, if any, in the capacitance, charge, potential difference, electric field and the energy stored.

17. What limits maximum potential to which the hollow sphere in Van de Graff generator can be raised?

18. Why the Vande Graff generator is enclosed inside an earth connected steel tank filled with air under pressure?

19. N small drops of same size are charged to V volt each. They coalesce to form a bigger drop. Calculate the potential of the bigger drop.

20. Fig shows the variation of charge Q vs. potential difference V for two capacitors C_1 and C_2 . The two capacitors have same plate separation but the plate area of C_2 is double that of C_1 . Which of the two lines in the fig correspond to C_1 and C_2

and why?

21. Fig show the variation of voltage V across the plates of two capacitors A and B versus increase of charge Q stored on them. Which of the two capacitors has higher capacitance? Give reason.

22. How will the capacitance of a parallel plate capacitor be affected if (a) The Area of each plate is increased (b) The distance between each plate is increased

23. What is the area of the plates of a parallel plate

B

A

A

B

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capacitor of capacitance $2F$ and with separation between plates 0.5 cm ?

24. You are given three capacitors of value $2\mu F$, $3\mu F$, $6\mu F$. How will you connect them to a resultant capacity of $4\mu F$?

25. A parallel plate capacitor is made by stacking ' n ' equally spaced plates connected alternatively. If the capacitance between any two plates is ' C ', determine the resultant capacitance of the combination

26. What is the area of the plates of a parallel plate capacitor of capacitance $2F$ and with separation between plates 0.5 cm ?

5 marks questions

1. State Coulomb's law. Define one coulomb. Give its limitations. Express coulomb's law in vector form. What is its importance?

2. Prove that electric field intensity on the axial line due to electric dipole is twice the intensity on the equatorial line. Give the direction of electric field on axial line and equatorial line.

3. What are electric lines of force? Give its properties and its importance. Why two electric lines of force do not cross each other?

4. Show that work done /line integral of electric field in moving a charge from one point to another inside the electric field is independent of path followed.

5. Define electrostatic potential energy of system of charges and derive expression for it for system of three charges.

6. Distinguish between electric potential and electric potential energy and state the

relation between them.

7. Define electric potential difference and derive expression for it. Define its unit.
8. Derive an expression for the potential at a point along the axial line of a short electric dipole. Show mathematically that the potential at a point on the equatorial line of an electric dipole is zero.
9. Derive the expression for potential energy when an electric dipole is placed inside uniform electric field. Under what condition these are maximum and minimum.
10. What does the negative sign in the expression for potential energy ($U = -pE \cos \theta$) signify?
11. Derive expression for electric field due to spherical shell at any point (i) inside (ii) outside (iii) on the surface using Gauss's theorem.
12. Derive expression for electric field due to spherical body at any point (i) inside (ii) outside (iii) on the surface using Gauss's theorem.
13. State and prove Gauss's theorem. Derive expression for electric field due to line charge using Gauss's theorem.
14. Define capacitance. Derive the expression for capacitance of parallel plate capacitor.
15. Derive the expression for energy stored in a capacitor? In what form is the energy stored in a charged capacitor.

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16. Three capacitors of capacitance C_1 , C_2 , C_3 are connected in (i) series (ii) parallel. Find the expression for resultant capacitance.
17. Derive the expression for capacitance of parallel plate capacitor when dielectric slab is inserted between plates of the capacitor.
18. Derive the expression for capacitance of parallel plate capacitor when conducting slab is inserted between plates of the capacitor.
19. Give the principle, construction and working of Van de Graaff generator.

Unit II: Current Electricity

2 marks questions

CURRENT ELECTRICITY

1. How does the drift velocity of electrons in a metallic conductor vary with increase in temperature?
2. What are ohmic and non ohmic devices? Give one example of each.
3. Define resistance. On what factors it depends?
4. Draw a graph to show the variation of resistance of a metal wire as a function of its diameter, keeping length and temperature constant.
5. Define resistivity. On what factors it depends.
6. Resistivities of copper, silver and manganin are $1.7 \times 10^{-8} \Omega\text{-m}$, $1.0 \times 10^{-8} \Omega\text{-m}$ and $44 \times 10^{-8} \Omega\text{-m}$ respectively. Which of these is the best conductor?
7. A metal and a semiconductor material are cooled. What happens to their conductivities and why?
8. What is difference between e.m.f and terminal potential difference?
9. Name the material used for making standard resistors? Give two reasons.
10. What happens to the drift velocity (v_d) of electrons and to the resistance R if length of a conductor is doubled (keeping potential difference unchanged)?
11. The V-I graph is drawn for a metal wire at two temperature T_1 and T_2 . If $T_1 > T_2$, draw the graph.
12. A large number of free electrons are present in metals. Why is there no current in the absence of electric field across it?
13. What is more dangerous to human body, the current or voltage?

14. It is found that 10^{20} electrons each having a charge of 1.6×10^{-19} C, pass from a point X towards another point Y in 0.1 s. What are the current and its direction?

15. An electric motor operating on a 50 V dc supply draws a current of 12 A. If the efficiency of the motor is 30%, estimate the resistance of the windings of the motor.

16. Will water flow more easily through a wide pipe or a narrow pipe? Will current flow more easily through a thick wire or a thin wire?

17. Distinguish between a *kilowatt* and a *kilowatt-hour*.

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18. The wattage marked on a light bulb is not an inherent property of the bulb but depends on the voltage to which it is connected, usually 110 or 120 V.

How many amperes flow through a 60-W bulb connected in a 120-V circuit?

19. An electric iron connected to a 110-V source draws 9 A of current. How much heat in joules does it generate in a minute?

ELECTRICAL MEASUREMENT

1. Of which material potentiometer wire is made and why?

2. Why do we prefer potentiometer with a longer bridge wire?

3. Why do we prefer potentiometer rather than voltmeter to measure e.m.f of cell?

4. When is Wheatstone bridge most sensitive?

5. How can you increase the sensitivity of a potentiometer?

6. Kirchhoff's first law obeys the law of conservation of charge. Explain.

3 marks questions

1. What is drift velocity and relaxation time? Establish relation between them.

2. State and prove Ohm's law using the concept of drift velocity.

3. How resistivity of metals, semiconductors, and insulator does vary with temperature?

4. Derive the relation for resistivity τ

$$\rho = \frac{m}{ne}$$

ml

= where symbols have their usual meaning.

5. Establish the relation between current and drift velocity.

6. Three resistances are connected in series. Find the expression for their equivalent resistance.

7. Three resistances are connected in parallel. Find the expression for their equivalent resistance.

8. What is internal resistance? Derive expression for it.

9. A wire of resistance 1 ohm and resistivity ' ρ ' is stretched to double its length. What will be its new resistance and resistivity?

10. If a copper wire is stretched to make it 0.1% longer, what is the percentage change in its resistance?

11. A battery on emf E and internal resistance r gives a current 0.5 A with an external resistance of 12 Ω and a current 0.25 A with an external resistance of 25 Ω .

Calculate the internal resistance and emf of the cell.

12. State and explain Kirchhoff's law.

13. Derive the principle for the balance of Wheatstone bridge.

14. Explain the use of Slide Wire Bridge to measure unknown resistance.

15. What is potentiometer? Give its principle.

16. Explain one use of potentiometer with the help of proper diagram.

17. Draw the diagram showing the experimental arrangement for determining the resistance of a given wire of unknown resistance.

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Unit III

Magnetic Effects of Current and Magnetism

1 mark questions

1. State Biot Savart's law.
 2. State Fleming right hand thumb rule.
 3. State Ampere's circuital law.
 4. State Ampere swimming rule.
 5. What is magnetic Lorentz force?
 6. Under what condition magnetic Lorentz force is maximum and minimum?
 7. What is the force experienced by a stationary charge in magnetic field?
 8. Can neutrons be accelerated in a cyclotron?
 9. What is meant cyclotron frequency?
 10. State Fleming's left hand rule.
 11. Give the principle of moving coil galvanometer.
 12. What is nature of magnetic field in a moving coil galvanometer?
 13. Define current sensitivity of a moving coil galvanometer?
 14. Define voltage sensitivity of a moving coil galvanometer?
 15. What is shunt?
 16. What are uses of shunt?
 17. How is ammeter connected in an electric circuit?
 18. How is voltmeter connected in an electric circuit?
 19. What is the resistance of an ideal ammeter and voltmeter?
 20. Give the principle of a d.c. motor.
 21. What is nature of force, when two parallel conductors carry current in (i) same direction, (ii) opposite direction?
 22. What do you mean by directive property of a magnetic dipole?
 23. Does an isolated magnetic pole exist like an isolate charge?
 24. Define magnetic dipole moment.
 25. What is SI unit of magnetic dipole moment?
 26. What is geographic meridian?
 27. What is magnetic meridian?
 28. Write the names of parameters of earth magnetic field.
 29. Define dip.
 30. Define declination.
 31. Define Bohr magneton.
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32. What is value of Bohr magneton?
 33. What is value of dip on equator of earth?
 34. What is value of dip on magnetic poles of earth?
 35. What do you mean by neutral points in a magnetic field?
 36. Define intensity of magnetisation of magnetic materials.
 37. Define magnetic flux.
 38. Define magnetic susceptibility.
 39. Define magnetic permeability.
 40. Name a physical quantity which is measured in wb/A .

41. Define tesla.
42. Name the physical quantity, whose unit is tesla.
43. What do you mean by non magnetic materials?
44. What happens when a diamagnetic substance is placed in a varying magnetic field?
45. What happens when a paramagnetic substance is placed in a varying magnetic field?
46. State Curie law in magnetism.
47. What is Curie point?
48. What is hysteresis?
49. Define retentivity.
50. Define coercivity.
51. What type of material is used in making permanent magnets?
52. What type of material is used in making electromagnets?
53. Give the method to destroy the magnetism of a magnet.

BIOT SAVART LAW AND ITS APPLICATIONS

5 marks questions

1. Using Biot Savart's law derives the expression for magnetic field due to current carrying straight long conductor. State right hand thumb rule.
2. Using Biot Savart's law derives the expression for magnetic field at the centre of current carrying coil.
3. Using Biot Savart's law derives the expression for magnetic field on the axis of current carrying coil.
4. Derive the expression for force on a current carrying conductor placed in a magnetic field. In which condition it is maximum and minimum.
- 40
5. Find the expression for force between two infinitely long parallel current carrying conductors. Define one ampere.
6. State and prove Ampere's circuital law. How will you find magnetic field of current carrying solenoid using this law.
7. What is torrid? How will you find magnetic field due to current carrying torridial solenoid.
8. Give the principle, construction and working theory of moving coil galvanometer.
9. How will you convert galvanometer into (i) ammeter (ii) voltmeter?
10. Give the principle construction and working theory of a cyclotron. Why it is not suitable for accelerating electrons and neutrons?
11. Define magnetic field intensity at a point and derive an expression for it at a point on the axial line of a magnetic dipole.
12. A magnetic dipole is placed in a magnetic field; derive the expression for torque and potential energy? Under what conditions these are maximum and minimum.
13. Show that atom acts as a magnetic dipole. Define Bohr's magneton.
14. Give ten differences between dia-, para-, and ferro- magnetic substances.
15. Explain hysteresis loop. Define coercivity and retentivity. Why do we prefer steel or alnico for making permanent magnet?

UNIT IV: ELECTROMAGNETIC INDUCTION

3 marks questions

1. State Faraday's law of electromagnetic induction.
2. State Lenz's law. Show that it obeys law of conservation of energy.
3. What are eddy currents? How are they produced and how these can be minimized?
4. Define self induction. Define its unit.
5. Derive expression for self inductance for current carrying long solenoid.
6. Define mutual induction. Define its unit.
7. Derive expression for mutual inductance for current carrying long solenoid.
8. Explain why the inductance coils are made of copper. What is non-inductive wiring of coils?
9. Coils in the resistance boxes are made from doubled up insulated wires. Why?
10. Why is spark produced in the switch of a fan, when it is switched off?
11. An induced current has no direction of its own. Comment.
12. Why the coil of dead beat galvanometer wound on a metal frame?
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13. What is difference between a steady current and d.c?
14. Define average value of a.c and derive expression for it.
15. Define r.m.s value of a.c and derive expression for it.
16. Derive expression for impedance and phase angle when a.c is applied to the circuit containing resistance.
17. Derive expression for impedance and phase angle when a.c is applied to the circuit containing inductance.
18. Derive expression for impedance and phase angle when a.c is applied to the circuit containing capacitor.
19. Derive expression for impedance and phase angle when a.c is applied to the circuit containing LR.
20. Derive expression for impedance and phase angle when a.c is applied to the circuit containing CR.
21. Derive expression for impedance and phase angle when a.c is applied to the circuit containing LCR.
22. What is condition of resonance and expression for resonant frequency?
23. What is Q-factor? Give its units. On what factors it depends.
24. Derive expression for the power of an a.c circuit containing LCR circuit.
25. What is power factor? On what factor it depends? Give its importance.
26. Which is more dangerous to use: a.c or d.c? Why?
27. Distinguish between resistance, reactance and impedance.
28. Prove that capacitor blocks d.c and allows a.c to pass through.
29. Prove that an inductor offers an easy path to d.c and resistive path to a.c.
30. Prove mathematically that the average value of a.c over one complete cycle is zero.
31. The frequency of a.c source is doubled. How do R, X_L , X_C get affected?
32. Draw the graph showing the variation of resistance of (a) a capacitor and (b) an inductor with the frequency of an a.c. circuit.
33. For circuits used for transporting electric power, a low power factor implies large power loss in transmission. Why?
34. Why power factor correction is must in heavy machinery?
35. Explain the use transformer for the long distance transmission of energy.
36. What is function of choke coil in a fluorescent tube?

37. The core of a transformer is made of a material whose hysteresis loop is narrow. Why?
38. What is the use of a motor starter?
39. Why is choke preferred to rheostat in controlling a.c. supply?
40. Give the working principle of a starter used along with a choke in a fluorescent tube.
41. The rate of change of current in one of the coils (a system formed by two coils) is 1.6 A/s . Due to this, induced emf in the other coil is $25.6 \cdot 10^{-3} \text{ V}$. Find mutual inductance of the system formed by coils. (Ans: $16 \cdot 10^{-3} \text{ H}$)
42. The number of turns in a coil is 10000 and area of each turn is 4 cm^2 . It is placed perpendicularly to the magnetic induction B . If the coil is rotated through 90° from this position, then find the charge induced. [R = 10Ω , B = 6 Wb/m^2] (Ans: 2.4 coulomb)
43. The total length of wings of an aeroplane is 15 m. Its horizontal velocity is 720 km/hr . Calculate the induced electromotive force between the two ends of its wings. The value of vertical component of earth's magnetic field is $4 \cdot 10^{-5} \text{ Tesla}$. (Ans: 0.12 V)
44. There are 50 turns in the coil and the flux linked with each of its turn is 0.2 weber. If 5 ampere current passes through the coil, find self-inductance of the coil. (Ans: 2.0 H)
45. Number of turns of a coil is 50. Area of every turn is 100 cm^2 . The plane of the coil is perpendicular to the uniform magnetic field of $200 \times 10^{-4} \text{ weber/m}^2$. It is rotated so that the plane of the coil becomes parallel to the same magnetic field within 0.1 sec. Calculate the induced emf. (Ans: 0.10 V)
46. A coil of 500 turns and area 10 cm^2 is placed with its plane perpendicular to a magnetic field of $2 \times 10^{-3} \text{ weber/m}^2$. If the field is uniformly reduced to zero in 10^{-2} s , what will be the emf? Induced in the coil? If the resistance of the coil is 50 ohm, calculate the values of the current and charge induced in the coil. Ans: 0.1 volt, 0.002 A, $2 \times 10^{-5} \text{ C}$)
47. A surface vector of area 60 m^2 is parallel to and in a magnetic field. The intensity of this uniform magnetic field is 300 weber/m^2 (tesla). If the surface rotates through 90° in 3 minutes, then find the induced emf. (Ans: 100 volt)
48. In a uniform magnetic field of 600 tesla a surface-vector of area is placed parallel to it. From this position, if this surface rotates through 90° in 5 minutes producing the induced emf. of 80 volt, then find the surface-vector area. (Ans: 40 m^2)
49. The two rails of railway track, insulated from each other, and the ground are connected to a milli-voltmeter. What will be the reading of the milli-voltmeter when a train travels at a speed of 180 km/hr along the track, if the vertical component of earth's magnetic field is $2 \times 10^{-5} \text{ T}$.

- 4 weber /m² and rails are separated by 1 m.(Ans: 1 mV)
50. The length of the wing of an air plane is 10 m. Its horizontal velocity is 200 m /s. If the vertical component of the earth's magnetic field is 5.0×10^{-5} weber /m², calculate the potential difference developed across the two ends of the wing. (Ans: 0.1 V)
51. A direct current of 2 A in a coil of 400 turns causes a flux of 10^{-4} weber to links of the coil. Compute the average counter emf. induced in the coil if the current is interrupted in 0.08 s. Find the inductance of the coil.(Ans: 0.5 V, 0.02 H)
52. The length of a solenoid having 1000 turns is 10π cm. If its crosssectional area is 10 cm², find its self-inductance. If a current of 10 A flows through it, what is the strength of magnetic field intensity inside it? ($\mu_0 = 4\pi \times 10^{-7}$ tesla-m /A)
(Ans: 4×10^{-3} H, 0.04 tesla)
53. The e.m.f of ac source is given by the expression $E = 300 \sin 314 t$ volts. Write the values of a peak voltage and frequency of source.
54. An electrical element X, when connected to an alternating voltage source, has the current through it leading the voltage by $\pi/2$ rad. Identify X and write an expression for its reactance.
55. Draw the graphs showing the variation of reactance of (a) a capacitor and (b) an inductor with the frequency of an a.c. circuit.
56. Derive an expression for the instantaneous value of induced e.m.f in a coil when it is rotated in a uniform magnetic field at a uniform angular velocity. How does the e.m.f vary when the coil rotates through an angle of 2π ?
57. The magnetic flux through a coil perpendicular to its plane is varying according to the relation $\phi = (5 t^3 + 4 t^2 + 2t - 5)$ weber. Calculate the induced current through the coil at $t = 2$ s of the resistance of the coil is 5 Ω .

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Unit V: Electromagnetic Waves

2 marks questions

1. What are electromagnetic waves? Give its properties.
2. Give the brief history of em waves.
3. Explain Hertz's experiment for the production of electromagnetic waves.
4. Give two properties of infra-red rays.
5. Give two properties of ultra-violet rays.
6. Give two properties of micro waves.
7. Give two properties of X-rays.
8. Give two properties of γ -rays.
9. Give two uses of infra-red rays.
10. Give two uses of ultra-violet rays.
11. Give two uses of micro waves.
12. Give two uses of X-rays.
13. Give two uses of γ -rays
14. Explain Green house effect.
15. The small ozone layer on the top of stratosphere is crucial for human

survival. Why?

16. Which part of the electromagnetic spectrum is used in operating RADAR?

17. What is displacement current? Why did Maxwell introduce the concept of displacement current?

Unit VI: Optics

2 marks questions

1. Define wave front and ray of light. How they are related to each other.
 2. Why ether was called a hypothetical medium?
 3. Why is the contribution of wavelets lying on the back of secondary wave front zero?
 4. Draw the shape of wave front originating from (i) a point source and (ii) a line source?
 5. What are two assumptions on which Huygens' Principle is based?
 6. Why do the oil films on the surface of water appear to be coloured?
 7. Why does an excessively thin film appear black in reflected light?
 8. Bubbles of colourless soap solution appear coloured in sunlight. Why?
 9. Why no interference pattern is observed, when two coherent sources are (i) infinitely close to each other (ii) far apart from each other?
 10. What is diffraction of light? What is condition for diffraction to takes place?
 11. What is difference between interference and diffraction?
 12. Why can sound waves be diffracted more easily than light waves?
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13. What do you mean by crossed polarized and elliptically polarized light?
 14. What is refraction of light? State its laws.
 15. What is refractive index? On what factors it depends?
 16. Why do stars twinkle at night?
 17. The sun is seen a little before it rises and for a short while after it sets. Explain why?
 18. Why does a tank filled with water appear shallow?
 19. A stick is partially immersed obliquely under water appears to be bent. Explain why?
 20. How do you explain the mirage effect produced in very hot deserts?
 21. Why is the diamond brilliant? Is it a source of light also?
 22. Can a convergent lens in one medium behave as a divergent lens in some other medium?
 23. What is spherical aberration? How it can be minimized.
 24. Although the surfaces of a goggle lens are curved, it does not have any power. Explain why?
 25. What is dispersion of light? Explain its cause.
 26. Why sky appear blue? What will it look like on moon?
 27. Why the rising sun is red in colour?
 28. Eye is more sensitive to yellow colour. Why are then danger signals red?
 29. What is difference between reflecting and refracting type telescope?
 30. A concave lens is kept in contact with a convex lens of focal length 20 cm. the combination works as a convex lens of power 2D. Find the power of the concave lens.
 31. A thin prism of 5° angle gives a deviation of 3.2° . What is the value of refractive index of the material of the prism?
 32. What is the ratio of slit widths when the amplitudes of light waves from them have a ratio 3:1?
 33. If the two slits in Young's experiment have width ratio 4:1, calculate the ratio of intensity at maxima and minima in the interference pattern.

34. Two coherent sources whose intensity ratio is 25:1 produce interference fringes. Calculate the ratio of intensity of maxima and minima in the fringe system.
35. A ray of light is incident on the surface of a glass plate of refractive index 1.5 at the polarising angle. Calculate the angle of refraction.
36. For a given medium the polarising angle is 60° . What will be the critical angle of the medium?

3 marks questions

- Verify law of reflection using Huygens' wave theory.
 - Verify law of refraction using Huygens' wave theory.
 - What is interference of light? Show that it obeys law of conservation of energy.
 - What is sustained interference pattern? What conditions must be satisfied for producing sustain interference pattern?
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- What are coherent sources? Why two independent source of light do not produce interference pattern?
 - What happens to fringe width under the following operations; (i) slit width is reduced (ii) distance between screen and slit is reduced (iii) monochromatic light is replaced by white light (iv) apparatus is immersed in water?
 - Define resolving power of telescope. On what factors it depends?
 - Define resolving power of microscope. On what factors it depends?
 - What is polarization of light? How will you represent polarized and unpolarised light?
 - State and prove Brewster law of polarization of light.
 - What are Polaroid and give its uses?
 - Define (i) critical angle (ii) polarizing angle. What is relation between them?
 - What is total internal reflection? Write the conditions for total internal reflection to take place. Give one application of total internal reflection.
 - What is optical fibre? State its principle and give its applications.
 - What is power of lens? Why is the power of a lens measured as the reciprocal of focal length?
 - What is equivalent lens? Obtain an expression for the effective focal length of two convex lenses placed in contact.
 - State and prove prism formula.
 - Derive the relation for refractive index of material of prism when prism is placed in minimum deviation position.
 - Prove that for small angle of prism $\delta = A(\mu - 1)$.
 - What do you understand by deviation without dispersion? Obtain expression for it.
 - An object is placed at a distance of 40cm from a concave mirror of focal length 15cm. if the object is displaced through a distance of 20cm towards the mirror, by how much distance is the image displaced?
 - A convex lens of focal length 0.2 m and made of glass ($\mu = 1.5$) is immersed in water ($\mu = 1.33$). Find the change in the focal length of the lens.
 - An object is placed at a distance of 75 cm from a screen, where should a convex lens of focal length 12 cm be placed so as to obtain real image of

the object on the screen?

24. A ray of light incident on an equilateral glass prism shows minimum deviation of 30° . Calculate the speed of light through glass prism.

25. A person's far point is 2m and his near point is 40 cm. find the nature, focal length and power of the lenses, he must use to (a) see distant objects and (b) read a book clearly. The least distance of distinct vision is 25 cm.

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26. Light of wavelength 4000\AA

is incident on a double slit, if the overall separation of 10 fringes on a screen 200 cm away is 1.0 cm, find the distance between two slits.

27. The fringe width in a Young's double slit interference pattern is 2.4×10^{-4} m, when red light of wavelength 6400\AA

is used. By how much will it change, if blue light of wavelength 4000\AA

is used?

5 marks questions

1. State principle of superposition of light waves. Derive the conditions for constructive and destructive interference.
2. Derive the expression for fringe width for young double slit experiment.
3. Describe an experiment to show that light waves are transverse in nature.
4. Explain Fraunhofer diffraction of single slit and derive relation for linear width of central maxima.
5. With the help of a ray diagram, explain the principle, working and expression for magnifying power of compound microscope.
6. With the help of a ray diagram, explain the principle, working and expression for magnifying power of telescope.
7. What is rainbow? Differentiate between primary and secondary rainbow with a diagram. Why two observers do not see the same rainbow?
8. Giving sign conventions and assumptions derive lens maker formula for convex lens.
9. By stating the sign-conventions and assumptions used, derive the relation between u , v and R of a convex spherical surface, when refraction takes place from optically denser to optically rarer medium.
10. By stating the sign-conventions and assumptions used, derive the relation between u , v and R of a concave spherical surface, when refraction takes place from optically denser to optically rarer medium.
11. Prove the following formula when refraction takes place at a convex spherical refracting surface and source of light lies in the rarer medium and image formed is virtual. $\frac{1}{v} - \frac{1}{u} = \frac{1}{R}$

$\frac{1}{v} - \frac{1}{u} = \frac{1}{R}$

Where symbols have their usual meanings.

12. Prove the following formula when refraction takes place at a convex spherical refracting surface and source of light lies in the rarer medium and image formed is real. $\frac{1}{v} + \frac{1}{u} = \frac{1}{R}$

=
[[[[Where symbols have their usual meanings.

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Unit VII: Dual nature of Matter and Radiation

1 mark questions

1. Define an electron volt.
2. How many joules make one electron volt?
3. What is photon?
4. On what factor does energy of photon of light depends?
5. What is photoelectric effect?
6. Define threshold wavelength.
7. Define threshold frequency.
8. Why alkali metals are most suited for photoelectric emission?
9. If the wavelength of the incident light is decreased, how does velocity of photoelectrons change?
10. Does the threshold frequency depend on the intensity of light?
11. Define stopping potential.
12. If the intensity of incident light is doubled, how does the stopping potential change?
13. If the frequency of the incident light is equal to the threshold frequency, what will be the value of the stopping potential?
14. What is value of rest mass of photon?
15. Which photon is more energetic: a red one or a violet one?
16. Define work function.
17. Write photoelectric equation.
18. Do non-metals show photoelectric effect?
19. Write de-Broglie wave equation.
20. Calculate de-Broglie wavelength of an electron beam accelerated through a potential difference of 100V?
21. Two metals A and B have work function 2eV, 4eV respectively, which metal have lower threshold wavelength for photoelectric effect?
22. The work function of cesium is 2eV. What does it mean?
23. It is harder to remove free electron from copper than from sodium. Which has higher work function?
24. The maximum K.E of electrons emitted by a photocell is 3eV, what is the stopping potential?

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25. What is the momentum of an electron beam of wavelength 4 Å?

2 marks questions

1. How many electron volts are there in 1 joule?
2. Prove that its rest mass is zero.
3. State laws of photoelectric emission.
4. On what factors photoelectric current depends?
5. Is photoelectric emission possible at all frequencies? Give reason.

6. If the frequency of the incident radiation on the cathode of a photocell is doubled, how will the following change: (i) kinetic energy of the electrons, (ii) photoelectric current.
7. Why photoelectric cell is also called an electric eye?
8. How much charge is carried by 1kg of photoelectrons?
9. On what factors stopping potential depends?
10. Calculate the energy of a photon in electron volt, whose wavelength is 6600 A
11. Find the number of photons emitted per second by a 25W source of monochromatic light of wavelength 6000 A
12. Radiations of wavelength 5000 A falls on a metal whose work function is 1.9eV. Find the energy of photo-electrons emitted?
13. On using light of wavelength 5000 A, the stopping potential for a photocell is 2.4 V. if light of wavelength 4000 A is used, and then what is value of stopping potential.
14. What do you understand by phrase ‘dual nature of radiation’?
15. A photon and electron have got the same de-Broglie wavelength. Which has greater total energy? Explain.
16. A proton and electron have got the same de-Broglie wavelength. Which has greater kinetic energy? Explain.
17. Derive an expression for de-Broglie wavelength of an electron moving under a potential difference of V volts.
18. Calculate de-Broglie wavelength in nm associated with a ball of mass 66g moving with a velocity $2.5 \times 10^5 \text{ ms}^{-1}$.

Unit VIII: Atoms & Nuclei

1 mark questions

1. Define impact parameter.
2. What is scattering angle for $b=0$?
3. What is distance of closest approach?
4. What is Bohr’s quantisation condition?
5. What is Bohr’s frequency condition?
6. Name the series of hydrogen spectrum which lies in ultraviolet region?
7. Name the series of hydrogen spectrum which lies in visible region?
8. Name the series of hydrogen spectrum which lies in infra-red region?
9. What is energy possessed by an electron in $n=_?$
10. What is the ionisation potential of hydrogen atom?
11. What is value of Rydberg’s constant?
12. How many electrons, protons and neutrons are there in a nucleus of atomic number 12 and mass number 25?

13. What are isotopes?
14. What are isobars?
15. What are isotones?
16. What are nuclear forces?
17. Give two properties of nuclear forces.
18. Define mass defect.
19. Define binding energy of a nucleus.
20. Define atomic mass unit.
21. State Einstein's mass energy relation.
22. How many joules are there in 1 MeV?
23. Define alpha decay.
24. Define beta decay.
25. Define gamma decay.
26. Select the pairs of isobars and isotones from the following nuclei: ${}^{22}_{11}\text{Na}$, ${}^{24}_{12}\text{Mg}$, ${}^{24}_{11}\text{Na}$, ${}^{23}_{10}\text{Ne}$

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3 marks questions

1. What is Rutherford atomic model? What are its drawbacks?
2. What is distance of closest approach and impact parameter?
3. What is difference between emission and absorption spectra?
4. Define isotopes, isobars and isotones.
5. Show that nuclear density is independent of mass number.
6. Define mass defect, binding energy and binding energy per nucleon.
7. Draw the curve between mass defect and binding energy per nucleon. What conclusion is drawn from it?
8. What are nuclear forces? Give its properties.
9. What is natural and artificial radioactivity?
10. What is difference between α -rays, β -rays, γ -rays?
11. Define radioactivity. State laws of radioactive disintegration.
12. State radioactive decay law. Show that radioactive decay is exponential decay.
13. What is half life period and mean life period? Establish relation between two.
14. What is radioactive disintegration constant? How it is related with half life period.
15. What are nuclear reactions? State the laws which are conserved during nuclear reactions.
16. What is difference between nuclear fission and nuclear fusion reactions?
17. A fusion reaction is more energetic than fission reaction. Comment.
18. Give the construction, working of nuclear reactors.
19. Why is heavy water used as a moderator?
20. Define critical mass and critical size.
21. Natural radioactive nuclei are nuclei of high mass number. Why?
22. Define two units of radioactivity. How are they related?
23. A nucleus contains no electrons, but can eject them. Why?
24. Uranium ${}^{238}_{92}\text{U}$ is not suitable for chain reaction. Why?
25. What are thermal neutrons? Why are the neutrons as effective as bombarding particles?

26. Why control rods are made of Cadmium in a nuclear reactor?
27. Explain the production of energy in stars.
28. In heavy nuclei, number of neutrons is more than number of protons. Why?
29. The sun is continuously losing mass. Comment on the statement.

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Unit IX: Electronic Devices

1 marks questions

1. Why crystalline solids have sharp melting points?
2. What is valence band?
3. What is conduction band?
4. Define forbidden energy gap in solids.
5. What is Fermi energy level?
6. Why metallic solids are opaque?
7. What is single crystal and poly crystal?
8. Why semiconductors are doped?
9. What is hole?
10. Doping of germanium with indium leads to which type of semiconductor?
11. What is electron mobility?
12. What is an extrinsic semiconductor?
13. Draw energy band diagram for an n-type extrinsic semiconductor.
14. Draw energy band diagram for a p-type extrinsic semiconductor.
15. How does conductivity of semiconductor change with rise in temperature?
16. What do you understand by potential barrier?
17. What is depletion region in a p-n junction?
18. What is effect on width of depletion layer when p-n junction is forward biased?
19. What is effect on resistance of a p-n junction when it is reverse biased?
20. Draw a circuit diagram of a p-n junction with forward bias.
21. Draw a circuit diagram of a p-n junction with reverse bias.
22. What is zener diode?
23. What is zener break down?
24. What are photodiodes?
25. What is light emitting diodes?
26. What is solar cell?
27. What is relation between current gains and β ?
28. Define transconductance of a transistor.
29. Convert number 37 into binary number system.
30. What is logic gate?
31. What is truth table of a logic gate?
32. What is Boolean expression?

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3 marks questions

1. What is difference between crystalline and amorphous solids?
2. Explain the formation of energy bands in solids.
3. On the basis of energy band theory, distinguish between metals, insulators and semiconductors.
4. What is meant by doping? Why it is done?

5. Distinguish between intrinsic and extrinsic semiconductors.
6. What is difference between p-type and n-type semiconductors?
7. What do you mean by hole in a semiconductor? Write its three characteristics.
8. What is donor energy level and acceptor energy level? Explain.
9. What is effect of increase in temperature on the conductivity of semiconductors and metals?
10. Why a semiconductor is damaged by strong currents?
11. Derive an expression for electrical conductivity of semiconductors.
12. Explain the formation of pn junction.
13. What is potential barrier, depletion layer?
14. What is forward and reverse biasing on junction diode?
15. Draw labelled characteristics (forward and reverse bias) of pn junction diode.
16. What do you mean by half waves rectifier and draw its circuit diagram?
17. Draw the circuit diagram of full wave rectifier and briefly explain its working principle?
18. What do you mean by transistor? Why it is so called? Give the symbols of n-p-n and p-n- transistor.
19. Explain the action of transistor.
20. What is zener diode? Give its symbol and use.
21. Explain the working of npn transistor as common base amplifier.
22. Explain the working of pnp transistor as common base amplifier.
23. Explain the working of npn transistor as common emitter amplifier.
24. Draw and explain the characteristic curves for pnp transistor in common emitter configuration.
25. Explain with the help of labelled diagram the working junction transistor as oscillator.
26. Write the merits and demerits of semiconductor devices over vacuum tubes.
27. Can two p-n junction diodes back to back work as transistor.
28. Define current amplification factor in common base and common emitter mode. Establish relation between two.
29. Why does the width of the depletion layer in a p-n junction vary with the increase in reverse bias?
30. In a transistor base is made thin, why?
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31. In a transistor, forward bias is always small as compared to the reverse bias. Explain
32. A transistor is a heat sensitive device. Explain
33. How will you test in a simple way whether transistor is spoiled or in working order?
34. Why a transistor cannot be used as rectifier?
35. In a transistor, emitter-base junction is always forward-biased, while the collector-base junction is reversing biased. Why?
36. What is digital and analog signal?
37. What are truth table, logic gate and Boolean expression?
38. Give the symbol, truth table and Boolean expression for AND gate.
39. Give the symbol, truth table and Boolean expression for OR.

40. Give the symbol, truth table and Boolean expression for NOT gate.
41. Give the symbol, truth table and Boolean expression for NAND gate.
42. Give the symbol, truth table and Boolean expression for NOR gate.
43. NAND or NOR gate are called building blocks of digital electronics. Why?
44. How we make AND, NOT and OR gate using NAND (NOR) gates?
45. How AND gate, OR gate are actually realised using pn junctions?
46. How NOTgate is actually realised using transistors?

Unit X: Communication Systems

2 marks questions

1. What is communication system? What are main constituents of communication system?
 2. What is transducer? Give an example.
 3. What is digital and analog communication system?
 4. What is frequency modulation and amplitude modulation?
 5. What are advantages of frequency modulation over amplitude modulation?
 6. Why do we need modulation for transmission of signals?
 7. What is modulation index? Give its importance.
 8. What do you mean by bandwidth and frequency deviation?
 9. What do you mean by quantization and sampling of an analog signal?
 10. The audio signal cannot be transmitted directly into space. Why?
 11. What is carrier wave? Why high frequency carrier waves are employed for transmission?
 12. What is noise? What are their causes?
 13. What is difference between bit-rate and sampling rate?
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14. What do you mean by pulse amplitude modulation and pulse code modulation?
 15. What are merits of digital communication?
 16. What is modem? Explain its principle.
 17. Explain the term FAX?
 18. Distinguish between a FAX and an e-mail.
 19. What is ground wave? Why short wave communication over long distance is not possible via ground wave?
 20. What are sky waves? Why sky waves are not used in the transmission of television signals?
 21. Briefly explain space wave propagation.
 22. Briefly explain sky wave propagation.
 23. What is an active satellite? How is it different from a passive satellite?
 24. It is necessary to use satellites for long distance TV transmission. Why?
 25. Deduce an expression for the distance at which TV signals can be directly received from a TV tower of height h .
 26. Greater the height of a TV transmission antenna, greater is its coverage. Explain.
 27. What is micro wave communication? What are its drawbacks?
 28. What is communication satellite? What are its advantage and disadvantages?
 29. What is remote sensing? How it is carried out? Give its applications.
 30. What are active and passive satellites?

31. What is transmission medium? What are various types of transmission media used for communication systems?
32. What are drawbacks of 2-wire line?
33. What are coaxial cables? What are their main advantages over 2-wire line?
34. What is function of copper mesh in a coaxial cable?

PHYSICS 10+2

Unit 1 : Electrostatics

2 marks questions

1. Explain Quantisation and conservation of charge.
2. Give the properties of electric charge.
3. What is difference between charge and mass?
4. What is dielectric constant? How does force gets affected when charges are placed in vacuum?
5. What are similarities and dissimilarities between Coulomb's forces and Gravitational forces?
6. Why water has high dielectric constant?
7. Two point charges q_1 and q_2 are such that $q_1q_2 > 0$. What is the nature of force between two charges?
8. What is the effect on the electrostatic force between two charges if (a) a dielectric slab is introduced between them (b) A metal slab is introduced between them
9. What is principle of superposition of charges? What is its importance?
10. Vehicles carrying inflammable materials usually have metallic ropes touching the ground during motion, why?
11. How the mass of the body is affected on charging?
12. How many electrons are present in one coulomb of charge?
13. An electrostatic force between two charges is called central force. Why?
14. Dielectric constant of water is 80. What is its permittivity?
15. If the distance between two equal point charges is doubled and their individual charges are also doubled, what would happen to the force between them?
16. A comb run through one's dry hair attracts small bits of paper. Why? What happens, if the hair is wet or it is a rainy day?
17. Can a charged body attract another uncharged body? Explain.
18. Can two balls having same kind of charge on them attract each other? Explain.
19. A bird perches on a bare high-power line and nothing happens to the bird. A man standing on the ground touches the same line and gets a fatal shock. Why?
20. Find the ratio of the order of magnitude of electrostatic force to gravitational force.
21. What is the effect on the electrostatic force between two charges if (a) a dielectric slab is introduced between them (b) A metal slab is introduced between them
22. In a medium, the force of attraction between two point electric charges. distance d apart is F . What distance apart should these be kept in the same

medium so that the force between them becomes

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a. $3F$

b. $F/3$

23. How many electrons would have to be removed from or added to a penny to leave it charged with $1.0 \times 10^{-6} \text{ C}$? [Ans: 6.25×10^{12}]

24. Two point charges, q_1 and q_2 at a separation r in vacuum exert a force F on each other. What should be their separation in oil of relative permittivity 16 so that the force between them remains F only?

25. Distilled water is an insulator, but impure water is a conductor. Explain why?

26. Two equally charged identical metal spheres A and B repel each other with a force of $2.0 \times 10^{-5} \text{ N}$. Another identical uncharged sphere C is touched to A and then placed at the mid point between A and B. What is the net force on C?

27. Four point charges $+5 \text{ mC}$, $+2 \text{ mC}$, $+10 \text{ mC}$ and $+2 \text{ mC}$ are kept at the corners of a square of side 10 cm. A charge $q = +1 \text{ mC}$ is placed at its centre. Find the net force on q .

28. Calculate the distance between two protons such that the electrostatic force between them is equal to the weight of either.

29. Two point charges are 0.1 m apart and their combined charge is 9 mC. If they repel each other with a force 18N, then calculate the magnitude of each charge.

30. Calculate the coulomb force between two alpha particles separated by a distance of $3.2 \times 10^{-15} \text{ m}$

ELECTRIC FIELD

1. Define electric field. Give its units.

2. Name the physical quantity, whose SI unit is N/C.

3. Why test is vanishingly small in defining electric field intensity?

4. What is electric dipole and dipole moment? Give the unit of electric dipole moment and its direction.

5. Does an electric dipole always experience a torque, when placed in a uniform electric field?

6. Determine the magnitude of an electric field that will balance the weight of an electron.

7. A distance of 2 m separates two point charges of $+5 \times 10^{-19} \text{ C}$ and $+5 \times 10^{-19} \text{ C}$. Find the point on the line joining them at which electric field intensity is zero.

8. A charged particle is free to move in an electric field. Will it always move along an electric line of force?

9. Electric field intensity within a conductor is always zero. Why?

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10. The electric field at a distance r from a short dipole on the axial position is E_1 and at the same distance on the equatorial position is E_2 . What is the relation between E_1 and E_2 .

11. Charge q each is placed at the corners of an equilateral triangle of side a . What is the electric field intensity at the centre of the triangle?

12. An electron and proton are free to move in an electric field. Which one will have greater acceleration? Why?

13. (a) Define electric dipole moment. (b) Derive expression for electric field intensity of a dipole at a point on its axial line. (c) Two charges $+10\mu\text{C}$ and $-10\mu\text{C}$ are placed 5 mm apart. Determine the electric field at a point P, 15 cm away from its centre O on a line passing through O and normal axis of the dipole.

14. A proton moves through a uniform electric field of $5.01 \times 10^3 \text{ N/C}$. Calculate (a) the acceleration with which the proton is moving and (b) the time taken by the proton to cover a distance of 4.8 cm.

15. Two point charges of unknown magnitude and sign are placed certain distance apart. The electric field is zero at a point not between the two charges but at a point on the line joining them. Write two essential conditions for this to happen.

ELECTRIC POTENTIAL

1. A charge $5\mu\text{C}$ is placed at a point. What is the work required to carry 1C of charge once around it in the circle of 12 cm radius?

2. If a point charge be rotated in a circle of radius r around a charge q , what will be work done and why?

3. Establish relation between electric field and potential gradient.

4. What are equipotential surfaces? Give its uses.

5. Show that work done in moving a charge over equipotential surfaces is zero.

6. Show that electric field is always at right angle to equipotential surfaces.

7. Equipotential surfaces help us to distinguish between strong and weak fields. Explain.

8. Equipotential surfaces give the direction of electric field. Explain

9. Why two equipotential surfaces do not cross each other?

10. If electric field is zero at any point, is it necessary electric potential must be zero at that point. Explain with the help of example.

11. If electric potential is zero at any point, is it necessary electric field must be zero at that point. Explain with the help of example.

12. Calculate the electric field between two metal plates 3 mm apart connected to a 3V battery.

13. Are there points around a dipole where the electric field is not zero but potential due to it is zero?

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14. What is the amount of work done in moving a 100 nC charge between two points 5cm apart on an equipotential surface?

15. Name the Physical quantity whose SI unit is

a. newton/coulomb

b. joule/coulomb

16. Show that the work done in rotating an electric dipole of dipole moment p in a uniform electric field E by an angle θ from the equilibrium position $W = pE(1-\cos\theta)$

17. Sketch two equipotential surfaces for (a) a point charge. (b) between two plane sheets of charge.

GAUSS'S THEOREM

1. Define electric flux. Give its unit.

2. What is Gaussian surface and what is its importance?

3. What is electrostatic shielding? Why it is safe to sit inside a car during

lightning?

4. A box encloses an electric dipole consisting of charge $5\mu\text{C}$ and $-5\mu\text{C}$ and of length 10 cm. What is the total electric flux through the box?
5. A sensitive instrument is to be shielded from the strong electrostatic field in its environment. Suggest a possible way.
6. A point charge of 8.86 C is placed at the centre of a cube of side 10 cm. Calculate the flux passing through its one face.
7. A point charge of 2 micro coulomb is at the centre of a cubic Gaussian surface 9cm edge. What is the net electric flux through all the surfaces of the cube?

CAPACITANCE

1. Explain the principle of capacitor.
 2. Show that the capacitance of an insulated spherical conductor is directly proportional to the radius of the spherical conductor.
 3. Why it is not possible for the sphere to have a capacity of 1F?
 4. How will the capacitance of a parallel plate capacitor be affected if (i) the area of each plate is increased (ii) the distance between the plates is increased?
 5. Show that there is loss of energy on sharing of charges by two capacitors.
 6. What is polar and non-polar dielectric? Give example for each.
 7. Why the capacitances of capacitor increase when dielectric slab is inserted between plates of the capacitor?
 8. Why does the electric field inside a dielectric decrease, when it is placed in an external electric field?
 9. On inserting a dielectric between the plates of a capacitor, its capacitance is found to increase 5 times. What is the relative permittivity of the dielectric?
- 34
- V
- Q
- V
- Q
10. An air capacitor is given a charge of $2\mu\text{C}$ raising its potential to 200V. If on inserting a dielectric medium its potential falls to 50V, what is the dielectric constant of the medium?
 11. In a parallel plate, how is the capacity affected, when without changing the charge: (i) the distance between the plates is doubled (ii) area of the plates is halved.
 12. Prove that the total energy stored in series combination of capacitors is equal to the sum of energies stored in the individual capacitors.
 13. Prove that the total energy stored in parallel combination of capacitors is equal to the sum of energies stored in the individual capacitors.
 14. Prove that energy stored per unit volume in a capacitor is given by $\frac{1}{2}\epsilon_0 \epsilon E^2$;
E is the electric field of the capacitor.
 15. If a parallel plate capacitor of capacitance C is kept connected to a supply voltage V to just fill the space and then a dielectric slab is inserted between the plates. What will be the change in the capacitance, potential difference, the charge, electric field and the energy stored.

16. A parallel plate capacitor of capacitance C is charged to a potential difference V and then the battery is disconnected. Now a dielectric slab of the dimensions equal spacing between the plates is inserted between the plates. What are the changes, if any, in the capacitance, charge, potential difference, electric field and the energy stored.

17. What limits maximum potential to which the hollow sphere in Van de Graff generator can be raised?

18. Why the Vande Graff generator is enclosed inside an earth connected steel tank filled with air under pressure?

19. N small drops of same size are charged to V volt each. They coalesce to form a bigger drop. Calculate the potential of the bigger drop.

20. Fig shows the variation of charge Q vs. potential difference V for two capacitors C_1 and C_2 . The two capacitors have same plate separation but the plate area of C_2 is double that of C_1 . Which of the two lines in the fig correspond to C_1 and C_2

and why?

21. Fig show the variation of voltage V across the plates of two capacitors A and B versus increase of charge Q stored on them. Which of the two capacitors has higher capacitance? Give reason.

22. How will the capacitance of a parallel plate capacitor be affected if (a) The Area of each plate is increased (b) The distance between each plate is increased

23. What is the area of the plates of a parallel plate

B

A

A

B

35

capacitor of capacitance $2F$ and with separation between plates 0.5 cm ?

24. You are given three capacitors of value $2\mu F$, $3\mu F$, $6\mu F$. How will you connect them to a resultant capacity of $4\mu F$?

25. A parallel plate capacitor is made by stacking ' n ' equally spaced plates connected alternatively. If the capacitance between any two plates is ' C ', determine the resultant capacitance of the combination

26. What is the area of the plates of a parallel plate capacitor of capacitance $2F$ and with separation between plates 0.5 cm ?

5 marks questions

1. State Coulomb's law. Define one coulomb. Give its limitations. Express coulomb's law in vector form. What is its importance?

2. Prove that electric field intensity on the axial line due to electric dipole is twice the intensity on the equatorial line. Give the direction of electric field on axial line and equatorial line.

3. What are electric lines of force? Give its properties and its importance. Why two electric lines of force do not cross each other?

4. Show that work done /line integral of electric field in moving a charge from one point to another inside the electric field is independent of path followed.

5. Define electrostatic potential energy of system of charges and derive expression for it for system of three charges.

6. Distinguish between electric potential and electric potential energy and state the relation between them.
 7. Define electric potential difference and derive expression for it. Define its unit.
 8. Derive an expression for the potential at a point along the axial line of a short electric dipole. Show mathematically that the potential at a point on the equatorial line of an electric dipole is zero.
 9. Derive the expression for potential energy when an electric dipole is placed inside uniform electric field. Under what condition these are maximum and minimum.
 10. What does the negative sign in the expression for potential energy ($U = -p E \cos \theta$) signify?
 11. Derive expression for electric field due to spherical shell at any point (i) inside (ii) outside (iii) on the surface using Gauss's theorem.
 12. Derive expression for electric field due to spherical body at any point (i) inside (ii) outside (iii) on the surface using Gauss's theorem.
 13. State and prove Gauss's theorem. Derive expression for electric field due to line charge using Gauss's theorem.
 14. Define capacitance. Derive the expression for capacitance of parallel plate capacitor.
 15. Derive the expression for energy stored in a capacitor? In what form is the energy stored in a charged capacitor.
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16. Three capacitors of capacitance C_1 , C_2 , C_3 are connected in (i) series (ii) parallel. Find the expression for resultant capacitance.
 17. Derive the expression for capacitance of parallel plate capacitor when dielectric slab is inserted between plates of the capacitor.
 18. Derive the expression for capacitance of parallel plate capacitor when conducting slab is inserted between plates of the capacitor.
 19. Give the principle, construction and working of Van de Graaff generator.

Unit II: Current Electricity

2 marks questions

CURRENT ELECTRICITY

1. How does the drift velocity of electrons in a metallic conductor vary with increase in temperature?
2. What are ohmic and non ohmic devices? Give one example of each.
3. Define resistance. On what factors it depends?
4. Draw a graph to show the variation of resistance of a metal wire as a function of its diameter, keeping length and temperature constant.
5. Define resistivity. On what factors it depends.
6. Resistivities of copper, silver and mangnin are $1.7 \times 10^{-8} \text{ } \Omega\text{-m}$, $1.0 \times 10^{-8} \text{ } \Omega\text{-m}$ and $44 \times 10^{-8} \text{ } \Omega\text{-m}$ respectively. Which of these is the best conductor?
7. A metal and a semiconductor material are cooled. What happens to their conductivities and why?
8. What is difference between e.m.f and terminal potential difference?
9. Name the material used for making standard resistors? Give two reasons.
10. What happens to the drift velocity (v_d) of electrons and to the resistance R if length of a conductor is doubled (keeping potential difference unchanged)?
11. The V-I graph is drawn for a metal wire at two temperature T_1 and T_2 . If $T_1 > T_2$, draw the graph.
12. A large number of free electrons are present in metals. Why is there no current in the absence of electric field across it?

13. What is more dangerous to human body, the current or voltage?
14. It is found that 10^{20} electrons each having a charge of 1.6×10^{-19} C, pass from a point X towards another point Y in 0.1 s. What are the current and its direction?
15. An electric motor operating on a 50 V dc supply draws a current of 12 A. If the efficiency of the motor is 30%, estimate the resistance of the windings of the motor.
16. Will water flow more easily through a wide pipe or a narrow pipe? Will current flow more easily through a thick wire or a thin wire?
17. Distinguish between a *kilowatt* and a *kilowatt-hour*.

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18. The wattage marked on a light bulb is not an inherent property of the bulb but depends on the voltage to which it is connected, usually 110 or 120 V. How many amperes flow through a 60-W bulb connected in a 120-V circuit?
19. An electric iron connected to a 110-V source draws 9 A of current. How much heat in joules does it generate in a minute?

ELECTRICAL MEASUREMENT

1. Of which material potentiometer wire is made and why?
2. Why do we prefer potentiometer with a longer bridge wire?
3. Why do we prefer potentiometer rather than voltmeter to measure e.m.f of cell?
4. When is Wheatstone bridge most sensitive?
5. How can you increase the sensitivity of a potentiometer?
6. Kirchhoff's first law obeys the law of conservation of charge. Explain.

3 marks questions

1. What is drift velocity and relaxation time? Establish relation between them.
2. State and prove Ohm's law using the concept of drift velocity.
3. How resistivity of metals, semiconductors, and insulator does vary with temperature?
4. Derive the relation for resistivity τ

$$\rho = \frac{ne}{ml}$$
 = where symbols have their usual meaning.
5. Establish the relation between current and drift velocity.
6. Three resistances are connected in series. Find the expression for their equivalent resistance.
7. Three resistances are connected in parallel. Find the expression for their equivalent resistance.
8. What is internal resistance? Derive expression for it.
9. A wire of resistance 1 ohm and resistivity ' ρ ' is stretched to double its length. What will be its new resistance and resistivity?
10. If a copper wire is stretched to make it 0.1% longer, what is the percentage change in its resistance?
11. A battery on emf E and internal resistance r gives a current 0.5 A with an external resistance of 12 Ω and a current 0.25 A with an external resistance of 25 Ω . Calculate the internal resistance and emf of the cell.
12. State and explain Kirchhoff's law.
13. Derive the principle for the balance of Wheatstone bridge.
14. Explain the use of Slide Wire Bridge to measure unknown resistance.

15. What is potentiometer? Give its principle.
16. Explain one use of potentiometer with the help of proper diagram.
17. Draw the diagram showing the experimental arrangement for determining the resistance of a given wire of unknown resistance.

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Unit III

Magnetic Effects of Current and Magnetism

1 mark questions

1. State Biot Savart's law.
 2. State Fleming right hand thumb rule.
 3. State Ampere's circuital law.
 4. State Ampere swimming rule.
 5. What is magnetic Lorentz force?
 6. Under what condition magnetic Lorentz force is maximum and minimum?
 7. What is the force experienced by a stationary charge in magnetic field?
 8. Can neutrons be accelerated in a cyclotron?
 9. What is meant cyclotron frequency?
 10. State Fleming's left hand rule.
 11. Give the principle of moving coil galvanometer.
 12. What is nature of magnetic field in a moving coil galvanometer?
 13. Define current sensitivity of a moving coil galvanometer?
 14. Define voltage sensitivity of a moving coil galvanometer?
 15. What is shunt?
 16. What are uses of shunt?
 17. How is ammeter connected in an electric circuit?
 18. How is voltmeter connected in an electric circuit?
 19. What is the resistance of an ideal ammeter and voltmeter?
 20. Give the principle of a d.c. motor.
 21. What is nature of force, when two parallel conductors carry current in (i) same direction, (ii) opposite direction?
 22. What do you mean by directive property of a magnetic dipole?
 23. Does an isolated magnetic pole exist like an isolate charge?
 24. Define magnetic dipole moment.
 25. What is SI unit of magnetic dipole moment?
 26. What is geographic meridian?
 27. What is magnetic meridian?
 28. Write the names of parameters of earth magnetic field.
 29. Define dip.
 30. Define declination.
 31. Define Bohr magneton.
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32. What is value of Bohr magneton?
 33. What is value of dip on equator of earth?
 34. What is value of dip on magnetic poles of earth?
 35. What do you mean by neutral points in a magnetic field?
 36. Define intensity of magnetisation of magnetic materials.
 37. Define magnetic flux.
 38. Define magnetic susceptibility.

39. Define magnetic permeability.
40. Name a physical quantity which is measured in wb/A .
41. Define tesla.
42. Name the physical quantity, whose unit is tesla.
43. What do you mean by non magnetic materials?
44. What happens when a diamagnetic substance is placed in a varying magnetic field?
45. What happens when a paramagnetic substance is placed in a varying magnetic field?
46. State Curie law in magnetism.
47. What is Curie point?
48. What is hysteresis?
49. Define retentivity.
50. Define coercivity.
51. What type of material is used in making permanent magnets?
52. What type of material is used in making electromagnets?
53. Give the method to destroy the magnetism of a magnet.

BIOT SAVART LAW AND ITS APPLICATIONS

5 marks questions

1. Using Biot Savart's law derives the expression for magnetic field due to current carrying straight long conductor. State right hand thumb rule.
2. Using Biot Savart's law derives the expression for magnetic field at the centre of current carrying coil.
3. Using Biot Savart's law derives the expression for magnetic field on the axis of current carrying coil.
4. Derive the expression for force on a current carrying conductor placed in a magnetic field. In which condition it is maximum and minimum.
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5. Find the expression for force between two infinitely long parallel current carrying conductors. Define one ampere.
6. State and prove Ampere's circuital law. How will you find magnetic field of current carrying solenoid using this law.
7. What is torrid? How will you find magnetic field due to current carrying torridial solenoid.
8. Give the principle, construction and working theory of moving coil galvanometer.
9. How will you convert galvanometer into (i) ammeter (ii) voltmeter?
10. Give the principle construction and working theory of a cyclotron. Why it is not suitable for accelerating electrons and neutrons?
11. Define magnetic field intensity at a point and derive an expression for it at a point on the axial line of a magnetic dipole.
12. A magnetic dipole is placed in a magnetic field; derive the expression for torque and potential energy? Under what conditions these are maximum and minimum.
13. Show that atom acts as a magnetic dipole. Define Bohr's magneton.
14. Give ten differences between dia-, para-, and ferro- magnetic substances.
15. Explain hysteresis loop. Define coercivity and retentivity. Why do we prefer steel or alnico for making permanent magnet?

UNIT IV: ELECTROMAGNETIC INDUCTION

3 marks questions

1. State Faraday's law of electromagnetic induction.
2. State Lenz's law. Show that it obeys law of conservation of energy.
3. What are eddy currents? How are they produced and how these can be minimized?
4. Define self induction. Define its unit.
5. Derive expression for self inductance for current carrying long solenoid.
6. Define mutual induction. Define its unit.
7. Derive expression for mutual inductance for current carrying long solenoid.
8. Explain why the inductance coils are made of copper. What is non-inductive wiring of coils?
9. Coils in the resistance boxes are made from doubled up insulated wires. Why?
10. Why is spark produced in the switch of a fan, when it is switched off?
11. An induced current has no direction of its own. Comment.
12. Why the coil of dead beat galvanometer wound on a metal frame?
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13. What is difference between a steady current and d.c?
14. Define average value of a.c and derive expression for it.
15. Define r.m.s value of a.c and derive expression for it.
16. Derive expression for impedance and phase angle when a.c is applied to the circuit containing resistance.
17. Derive expression for impedance and phase angle when a.c is applied to the circuit containing inductance.
18. Derive expression for impedance and phase angle when a.c is applied to the circuit containing capacitor.
19. Derive expression for impedance and phase angle when a.c is applied to the circuit containing LR.
20. Derive expression for impedance and phase angle when a.c is applied to the circuit containing CR.
21. Derive expression for impedance and phase angle when a.c is applied to the circuit containing LCR.
22. What is condition of resonance and expression for resonant frequency?
23. What is Q-factor? Give its units. On what factors it depends.
24. Derive expression for the power of an a.c circuit containing LCR circuit.
25. What is power factor? On what factor it depends? Give its importance.
26. Which is more dangerous to use: a.c or d.c? Why?
27. Distinguish between resistance, reactance and impedance.
28. Prove that capacitor blocks d.c and allows a.c to pass through.
29. Prove that an inductor offers an easy path to d.c and resistive path to a.c.
30. Prove mathematically that the average value of a.c over one complete cycle is zero.
31. The frequency of a.c source is doubled. How do R, X_L , X_C get affected?
32. Draw the graph showing the variation of resistance of (a) a capacitor and (b) an inductor with the frequency of an a.c. circuit.
33. For circuits used for transporting electric power, a low power factor implies large power loss in transmission. Why?

34. Why power factor correction is must in heavy machinery?
35. Explain the use transformer for the long distance transmission of energy.
36. What is function of choke coil in a fluorescent tube?
37. The core of a transformer is made of a material whose hysteresis loop is narrow. Why?
38. What is the use of a motor starter?
39. Why is choke preferred to rheostat in controlling a.c. supply?
40. Give the working principle of a starter used along with a choke in a fluorescent tube.
41. The rate of change of current in one of the coils (a system formed by two coils) is 1.6 A /s . Due to this, induced emf in the other coil is $25.6 \cdot 10^{-3} \text{ V}$. Find mutual inductance of the system formed by coils.
(Ans: $16 \cdot 10^{-3} \text{ H}$)
42. The number of turns in a coil is 10000 and area of each turn is 4 cm^2 . It is placed perpendicularly to the magnetic induction B . If the coil is rotated through 90° from this position, then find the charge induced.
[$R = 10 \Omega$, $B = 6 \text{ Wb /m}^2$](Ans: 2.4 coulomb)
43. The total length of wings of an aeroplane is 15 m. Its horizontal velocity is 720 km /hr. Calculate the induced electromotive force between the two ends of its wings. The value of vertical component of earth's magnetic field is $4 \cdot 10^{-5} \text{ Tesla}$. (Ans: 0.12 V)
44. There are 50 turns in the coil and the flux linked with each of its turn is 0.2 weber. If 5 ampere current passes through the coil, find self - inductance of the coil.(Ans: 2.0 H)
45. Number of turns of a coil is 50. Area of every turn is 100 cm^2 . The plane of the coil is perpendicular to the uniform magnetic field of $200 \times 10^{-4} \text{ weber /m}^2$. It is rotated so that the plane of the coil becomes parallel to the same magnetic field within 0.1 sec. Calculate the induced emf. (Ans: 0.10 V)
46. A coil of 500 turns and area 10 cm^2 is placed with its plane perpendicular to a magnetic field of $2 \times 10^{-3} \text{ weber /m}^2$. If the field is uniformly reduced to zero in 10^{-2} s , what will be the emf? Induced in the coil? If the resistance of the coil is 50 ohm, calculate the values of the current and charge induced in the coil. Ans: 0.1 volt, 0.002 A, $2 \times 10^{-5} \text{ C}$)
47. A surface vector of area 60 m^2 is parallel to and in a magnetic field. The intensity of this uniform magnetic field is 300 weber / m^2 (tesla). If the surface rotates through 90° in 3 minutes, then find the induced emf.
(Ans: 100 volt)
48. In a uniform magnetic field of 600 tesla a surface-vector of area is placed parallel to it. From this position, if this surface rotates through 90° in 5 minutes producing the induced emf. of 80 volt, then find the surface-vector area.(Ans: 40 m^2)
49. The two rails of railway track, insulated from each other, and the ground are connected to a milli-voltmeter. What will be the reading of

the milli-voltmeter when a train travels at a speed of 180 km /hr along
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the track, if the vertical component of earth's magnetic field is 2×10^{-4} weber /m² and rails are separated by 1 m.(Ans: 1 mV)

50. The length of the wing of an air plane is 10 m. Its horizontal velocity is 200 m /s. If the vertical component of the earth's magnetic field is

5.0×10^{-5} weber /m², calculate the potential difference developed across the two ends of the wing. (Ans: 0.1 V)

51. A direct current of 2 A in a coil of 400 turns causes a flux of 10^{-4} weber to links of the coil. Compute the average counter emf. induced in the coil if the current is interrupted in 0.08 s. Find the inductance of the coil.(Ans: 0.5 V, 0.02 H)

52. The length of a solenoid having 1000 turns is 10π cm. If its crosssectional

area is 10 cm², find its self-inductance. If a current of 10 A flows through it, what is the strength of magnetic field intensity inside it? ($\mu_0 = 4\pi \times 10^{-7}$ tesla-m /A)

(Ans: 4×10^{-3} H, 0.04 tesla)

53. The e.m.f of ac source is given by the expression $E = 300 \sin 314 t$ volts. Write the values of a peak voltage and frequency of source.

54. An electrical element X, when connected to an alternating voltage source, has the current through it leading the voltage by $\pi/2$ rad. Identify X and write an expression for its reactance.

55. Draw the graphs showing the variation of reactance of (a) a capacitor and (b) an inductor with the frequency of an a.c. circuit.

56. Derive an expression for the instantaneous value of induced e.m.f in a coil when it is rotated in a uniform magnetic field at a uniform angular velocity.

How does the e.m.f vary when the coil rotates through an angle of 2π ?

57. The magnetic flux through a coil perpendicular to its plane is varying according to the relation $\phi = (5t^3 + 4t^2 + 2t - 5)$ weber. Calculate the induced current through the coil at $t = 2$ s of the resistance of the coil is 5 Ω .

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Unit V: Electromagnetic Waves

2 marks questions

1. What are electromagnetic waves? Give its properties.
2. Give the brief history of em waves.
3. Explain Hertz's experiment for the production of electromagnetic waves.
4. Give two properties of infra-red rays.
5. Give two properties of ultra-violet rays.
6. Give two properties of micro waves.
7. Give two properties of X-rays.
8. Give two properties of γ -rays.
9. Give two uses of infra-red rays.
10. Give two uses of ultra-violet rays.
11. Give two uses of micro waves.
12. Give two uses of X-rays.

13. Give two uses of γ -rays
14. Explain Green house effect.
15. The small ozone layer on the top of stratosphere is crucial for human survival. Why?
16. Which part of the electromagnetic spectrum is used in operating RADAR?
17. What is displacement current? Why did Maxwell introduce the concept of displacement current?

Unit VI: Optics

2 marks questions

1. Define wave front and ray of light. How they are related to each other.
 2. Why ether was called a hypothetical medium?
 3. Why is the contribution of wavelets lying on the back of secondary wave front zero?
 4. Draw the shape of wave front originating from (i) a point source and (ii) a line source?
 5. What are two assumptions on which Huygens' Principle is based?
 6. Why do the oil films on the surface of water appear to be coloured?
 7. Why does an excessively thin film appear black in reflected light?
 8. Bubbles of colourless soap solution appear coloured in sunlight. Why?
 9. Why no interference pattern is observed, when two coherent sources are (i) infinitely close to each other (ii) far apart from each other?
 10. What is diffraction of light? What is condition for diffraction to takes place?
 11. What is difference between interference and diffraction?
 12. Why can sound waves be diffracted more easily than light waves?
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13. What do you mean by crossed polarized and elliptically polarized light?
 14. What is refraction of light? State its laws.
 15. What is refractive index? On what factors it depends?
 16. Why do stars twinkle at night?
 17. The sun is seen a little before it rises and for a short while after it sets. Explain why?
 18. Why does a tank filled with water appear shallow?
 19. A stick is partially immersed obliquely under water appears to be bent. Explain why?
 20. How do you explain the mirage effect produced in very hot deserts?
 21. Why is the diamond brilliant? Is it a source of light also?
 22. Can a convergent lens in one medium behave as a divergent lens in some other medium?
 23. What is spherical aberration? How it can be minimized.
 24. Although the surfaces of a goggle lens are curved, it does not have any power. Explain why?
 25. What is dispersion of light? Explain its cause.
 26. Why sky appear blue? What will it look like on moon?
 27. Why the rising sun is red in colour?
 28. Eye is more sensitive to yellow colour. Why are then danger signals red?
 29. What is difference between reflecting and refracting type telescope?
 30. A concave lens is kept in contact with a convex lens of focal length 20 cm. the combination works as a convex lens of power 2D. Find the power of the concave lens.
 31. A thin prism of 5° angle gives a deviation of 3.2° . What is the value of refractive index of the material of the prism?

32. What is the ratio of slit widths when the amplitudes of light waves from them have a ratio 3:1?
33. If the two slits in Young's experiment have width ratio 4:1, calculate the ratio of intensity at maxima and minima in the interference pattern.
34. Two coherent sources whose intensity ratio is 25:1 produce interference fringes. Calculate the ratio of intensity of maxima and minima in the fringe system.
35. A ray of light is incident on the surface of a glass plate of refractive index 1.5 at the polarising angle. Calculate the angle of refraction.
36. For a given medium the polarising angle is 60° . What will be the critical angle of the medium?

3 marks questions

1. Verify law of reflection using Huygens' wave theory.
 2. Verify law of refraction using Huygens' wave theory.
 3. What is interference of light? Show that it obeys law of conservation of energy.
 4. What is sustained interference pattern? What conditions must be satisfied for producing sustain interference pattern?
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5. What are coherent sources? Why two independent source of light do not produce interference pattern?
 6. What happens to fringe width under the following operations; (i) slit width is reduced (ii) distance between screen and slit is reduced (iii) monochromatic light is replaced by white light (iv) apparatus is immersed in water?
 7. Define resolving power of telescope. On what factors it depends?
 8. Define resolving power of microscope. On what factors it depends?
 9. What is polarization of light? How will you represent polarized and unpolarised light?
 10. State and prove Brewster law of polarization of light.
 11. What are Polaroid and give its uses?
 12. Define (i) critical angle (ii) polarizing angle. What is relation between them?
 13. What is total internal reflection? Write the conditions for total internal reflection to take place. Give one application of total internal reflection.
 14. What is optical fibre? State its principle and give its applications.
 15. What is power of lens? Why is the power of a lens measured as the reciprocal of focal length?
 16. What is equivalent lens? Obtain an expression for the effective focal length of two convex lenses placed in contact.
 17. State and prove prism formula.
 18. Derive the relation for refractive index of material of prism when prism is placed in minimum deviation position.
 19. Prove that for small angle of prism $\delta = A(\mu - 1)$.
 20. What do you understand by deviation without dispersion? Obtain expression for it.
 21. An object is placed at a distance of 40cm from a concave mirror of focal length 15cm. if the object is displaced through a distance of 20cm towards the mirror, by how much distance is the image displaced?
 22. A convex lens of focal length 0.2 m and made of glass ($\mu = 1.5$) is

immersed in water ($\mu=1.33$). Find the change in the focal length of the lens.

23. An object is placed at a distance of 75 cm from a screen, where should a convex lens of focal length 12 cm be placed so as to obtain real image of the object on the screen?

24. A ray of light incident on an equilateral glass prism shows minimum deviation of 30° . Calculate the speed of light through glass prism.

25. A person's far point is 2m and his near point is 40 cm. find the nature, focal length and power of the lenses, he must use to (a) see distant objects and (b) read a book clearly. The least distance of distinct vision is 25 cm.

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26. Light of wavelength 4000\AA

°

is incident on a double slit, if the overall separation of 10 fringes on a screen 200 cm away is 1.0 cm, find the distance between two slits.

27. The fringe width in a Young's double slit interference pattern is 2.4×10^{-4} m, when red light of wavelength 6400\AA

°

is used. By how much will it change, if blue light of wavelength 4000\AA

°

is used?

5 marks questions

1. State principle of superposition of light waves. Derive the conditions for constructive and destructive interference.

2. Derive the expression for fringe width for young double slit experiment.

3. Describe an experiment to show that light waves are transverse in nature.

4. Explain Fraunhofer diffraction of single slit and derive relation for linear width of central maxima.

5. With the help of a ray diagram, explain the principle, working and expression for magnifying power of compound microscope.

6. With the help of a ray diagram, explain the principle, working and expression for magnifying power of telescope.

7. What is rainbow? Differentiate between primary and secondary rainbow with a diagram. Why two observers do not see the same rainbow?

8. Giving sign conventions and assumptions derive lens maker formula for convex lens.

9. By stating the sign-conventions and assumptions used, derive the relation between u , v and R of a convex spherical surface, when refraction takes place from optically denser to optically rarer medium.

10. By stating the sign-conventions and assumptions used, derive the relation between u , v and R of a concave spherical surface, when refraction takes place from optically denser to optically rarer medium.

11. Prove the following formula when refraction takes place at a convex spherical refracting surface and source of light lies in the rarer medium and image formed is virtual. $\frac{v}{v_2} - \frac{u}{v_1} = \frac{R}{v_1} \left(\frac{v_2}{v_1} - 1 \right)$

v u R

=

$\left(\frac{v}{v_2} - \frac{u}{v_1} \right) = \frac{R}{v_1} \left(\frac{v_2}{v_1} - 1 \right)$ Where symbols have their

usual meanings.

12. Prove the following formula when refraction takes place at a convex spherical refracting surface and source of light lies in the rarer medium and image formed is real.

$\frac{v}{u} = \frac{R}{v} + \frac{R}{u}$

Where symbols have their usual meanings.

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Unit VII: Dual nature of Matter and Radiation

1 mark questions

1. Define an electron volt.
2. How many joules make one electron volt?
3. What is photon?
4. On what factor does energy of photon of light depends?
5. What is photoelectric effect?
6. Define threshold wavelength.
7. Define threshold frequency.
8. Why alkali metals are most suited for photoelectric emission?
9. If the wavelength of the incident light is decreased, how does velocity of photoelectrons change?
10. Does the threshold frequency depend on the intensity of light?
11. Define stopping potential.
12. If the intensity of incident light is doubled, how does the stopping potential change?
13. If the frequency of the incident light is equal to the threshold frequency, what will be the value of the stopping potential?
14. What is value of rest mass of photon?
15. Which photon is more energetic: a red one or a violet one?
16. Define work function.
17. Write photoelectric equation.
18. Do non-metals show photoelectric effect?
19. Write de-Broglie wave equation.
20. Calculate de-Broglie wavelength of an electron beam accelerated through a potential difference of 100V?
21. Two metals A and B have work function 2eV, 4eV respectively, which metal have lower threshold wavelength for photoelectric effect?
22. The work function of cesium is 2eV. What does it mean?
23. It is harder to remove free electron from copper than from sodium. Which has higher work function?
24. The maximum K.E of electrons emitted by a photocell is 3eV, what is the stopping potential?

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25. What is the momentum of an electron beam of wavelength 4 Å?

2 marks questions

1. How many electron volts are there in 1 joule?

2. Prove that its rest mass is zero.
3. State laws of photoelectric emission.
4. On what factors photoelectric current depends?
5. Is photoelectric emission possible at all frequencies? Give reason.
6. If the frequency of the incident radiation on the cathode of a photocell is doubled, how will the following change: (i) kinetic energy of the electrons, (ii) photoelectric current.
7. Why photoelectric cell is also called an electric eye?
8. How much charge is carried by 1kg of photoelectrons?
9. On what factors stopping potential depends?
10. Calculate the energy of a photon in electron volt, whose wavelength is 6600 A
11. Find the number of photons emitted per second by a 25W source of monochromatic light of wavelength 6000 A
12. Radiations of wavelength 5000 A falls on a metal whose work function is 1.9eV. Find the energy of photo-electrons emitted?
13. On using light of wavelength 5000 A, the stopping potential for a photocell is 2.4 V. if light of wavelength 4000 A is used, and then what is value of stopping potential.
14. What do you understand by phrase 'dual nature of radiation'?
15. A photon and electron have got the same de-Broglie wavelength. Which has greater total energy? Explain.
16. A proton and electron have got the same de-Broglie wavelength. Which has greater kinetic energy? Explain.
17. Derive an expression for de-Broglie wavelength of an electron moving under a potential difference of V volts.
18. Calculate de-Broglie wavelength in nm associated with a ball of mass 66g moving with a velocity $2.5 \times 10^5 \text{ ms}^{-1}$.

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Unit VIII: Atoms & Nuclei

1 mark questions

1. Define impact parameter.
2. What is scattering angle for $b=0$?
3. What is distance of closest approach?
4. What is Bohr's quantisation condition?
5. What is Bohr's frequency condition?
6. Name the series of hydrogen spectrum which lies in ultraviolet region?
7. Name the series of hydrogen spectrum which lies in visible region?
8. Name the series of hydrogen spectrum which lies in infra-red region?
9. What is energy possessed by an electron in $n=_$?

10. What is the ionisation potential of hydrogen atom?
11. What is value of Rydberg's constant?
12. How many electrons, protons and neutrons are there in a nucleus of atomic number 12 and mass number 25?
13. What are isotopes?
14. What are isobars?
15. What are isotones?
16. What are nuclear forces?
17. Give two properties of nuclear forces.
18. Define mass defect.
19. Define binding energy of a nucleus.
20. Define atomic mass unit.
21. State Einstein's mass energy relation.
22. How many joules are there in 1 MeV?
23. Define alpha decay.
24. Define beta decay.
25. Define gamma decay.
26. Select the pairs of isobars and isotones from the following nuclei: ${}^{22}_{11}\text{Na}$, ${}^{24}_{12}\text{Mg}$, ${}^{24}_{11}\text{Na}$, ${}^{23}_{10}\text{Ne}$

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3 marks questions

1. What is Rutherford atomic model? What are its drawbacks?
2. What is distance of closest approach and impact parameter?
3. What is difference between emission and absorption spectra?
4. Define isotopes, isobars and isotones.
5. Show that nuclear density is independent of mass number.
6. Define mass defect, binding energy and binding energy per nucleon.
7. Draw the curve between mass defect and binding energy per nucleon. What conclusion is drawn from it?
8. What are nuclear forces? Give its properties.
9. What is natural and artificial radioactivity?
10. What is difference between α -rays, β -rays, γ -rays?
11. Define radioactivity. State laws of radioactive disintegration.
12. State radioactive decay law. Show that radioactive decay is exponential decay.
13. What is half life period and mean life period? Establish relation between two.
14. What is radioactive disintegration constant? How it is related with half life period.
15. What are nuclear reactions? State the laws which are conserved during nuclear reactions.
16. What is difference between nuclear fission and nuclear fusion reactions?
17. A fusion reaction is more energetic than fission reaction. Comment.
18. Give the construction, working of nuclear reactors.
19. Why is heavy water used as a moderator?
20. Define critical mass and critical size.
21. Natural radioactive nuclei are nuclei of high mass number. Why?
22. Define two units of radioactivity. How are they related?

23. A nucleus contains no electrons, but can eject them. Why?
24. Uranium ${}_{92}\text{U}_{238}$ is not suitable for chain reaction. Why?
25. What are thermal neutrons? Why are the neutrons as effective as bombarding particles?
26. Why control rods are made of Cadmium in a nuclear reactor?
27. Explain the production of energy in stars.
28. In heavy nuclei, number of neutrons is more than number of protons. Why?
29. The sun is continuously losing mass. Comment on the statement.

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Unit IX: Electronic Devices

1 marks questions

1. Why crystalline solids have sharp melting points?
2. What is valence band?
3. What is conduction band?
4. Define forbidden energy gap in solids.
5. What is Fermi energy level?
6. Why metallic solids are opaque?
7. What is single crystal and poly crystal?
8. Why semiconductors are doped?
9. What is hole?
10. Doping of germanium with indium leads to which type of semiconductor?
11. What is electron mobility?
12. What is an extrinsic semiconductor?
13. Draw energy band diagram for an n-type extrinsic semiconductor.
14. Draw energy band diagram for a p-type extrinsic semiconductor.
15. How does conductivity of semiconductor change with rise in temperature?
16. What do you understand by potential barrier?
17. What is depletion region in a p-n junction?
18. What is effect on width of depletion layer when p-n junction is forward biased?
19. What is effect on resistance of a p-n junction when it is reverse biased?
20. Draw a circuit diagram of a p-n junction with forward bias.
21. Draw a circuit diagram of a p-n junction with reverse bias.
22. What is zener diode?
23. What is zener break down?
24. What are photodiodes?
25. What is light emitting diodes?
26. What is solar cell?
27. What is relation between current gains and β ?
28. Define transconductance of a transistor.
29. Convert number 37 into binary number system.
30. What is logic gate?
31. What is truth table of a logic gate?
32. What is Boolean expression?

53

3 marks questions

1. What is difference between crystalline and amorphous solids?

2. Explain the formation of energy bands in solids.
3. On the basis of energy band theory, distinguish between metals, insulators and semiconductors.
4. What is meant by doping? Why it is done?
5. Distinguish between intrinsic and extrinsic semiconductors.
6. What is difference between p-type and n-type semiconductors?
7. What do you mean by hole in a semiconductor? Write its three characteristics.
8. What is donor energy level and acceptor energy level? Explain.
9. What is effect of increase in temperature on the conductivity of semiconductors and metals?
10. Why a semiconductor is damaged by strong currents?
11. Derive an expression for electrical conductivity of semiconductors.
12. Explain the formation of pn junction.
13. What is potential barrier, depletion layer?
14. What is forward and reverse biasing on junction diode?
15. Draw labelled characteristics (forward and reverse bias) of pn junction diode.
16. What do you mean by half waves rectifier and draw its circuit diagram?
17. Draw the circuit diagram of full wave rectifier and briefly explain its working principle?
18. What do you mean by transistor? Why it is so called? Give the symbols of n-p-n and p-n- transistor.
19. Explain the action of transistor.
20. What is zener diode? Give its symbol and use.
21. Explain the working of npn transistor as common base amplifier.
22. Explain the working of pnp transistor as common base amplifier.
23. Explain the working of npn transistor as common emitter amplifier.
24. Draw and explain the characteristic curves for pnp transistor in common emitter configuration.
25. Explain with the help of labelled diagram the working junction transistor as oscillator.
26. Write the merits and demerits of semiconductor devices over vacuum tubes.
27. Can two p-n junction diodes back to back work as transistor.
28. Define current amplification factor in common base and common emitter mode. Establish relation between two.
29. Why does the width of the depletion layer in a p-n junction vary with the increase in reverse bias?
30. In a transistor base is made thin, why?
- 54
31. In a transistor, forward bias is always small as compared to the reverse bias. Explain
32. A transistor is a heat sensitive device. Explain
33. How will you test in a simple way whether transistor is spoiled or in working order?
34. Why a transistor cannot be used as rectifier?
35. In a transistor, emitter-base junction is always forward-biased, while the collector-base junction is reversing biased. Why?

36. What is digital and analog signal?
37. What are truth table, logic gate and Boolean expression?
38. Give the symbol, truth table and Boolean expression for AND gate.
39. Give the symbol, truth table and Boolean expression for OR.
40. Give the symbol, truth table and Boolean expression for NOT gate.
41. Give the symbol, truth table and Boolean expression for NAND gate.
42. Give the symbol, truth table and Boolean expression for NOR gate.
43. NAND or NOR gate are called building blocks of digital electronics. Why?
44. How we make AND, NOT and OR gate using NAND (NOR) gates?
45. How AND gate, OR gate are actually realised using pn junctions?
46. How NOTgate is actually realised using transistors?

Unit X: Communication Systems

2 marks questions

1. What is communication system? What are main constituents of communication system?
2. What is transducer? Give an example.
3. What is digital and analog communication system?
4. What is frequency modulation and amplitude modulation?
5. What are advantages of frequency modulation over amplitude modulation?
6. Why do we need modulation for transmission of signals?
7. What is modulation index? Give its importance.
8. What do you mean by bandwidth and frequency deviation?
9. What do you mean by quantization and sampling of an analog signal?
10. The audio signal cannot be transmitted directly into space. Why?
11. What is carrier wave? Why high frequency carrier waves are employed for transmission?
12. What is noise? What are their causes?
13. What is difference between bit-rate and sampling rate?
- 55
14. What do you mean by pulse amplitude modulation and pulse code modulation?
15. What are merits of digital communication?
16. What is modem? Explain its principle.
17. Explain the term FAX?
18. Distinguish between a FAX and an e-mail.
19. What is ground wave? Why short wave communication over long distance is not possible via ground wave?
20. What are sky waves? Why sky waves are not used in the transmission of television signals?
21. Briefly explain space wave propagation.
22. Briefly explain sky wave propagation.
23. What is an active satellite? How is it different from a passive satellite?
24. It is necessary to use satellites for long distance TV transmission. Why?
25. Deduce an expression for the distance at which TV signals can be directly received from a TV tower of height h .
26. Greater the height of a TV transmission antenna, greater is its coverage. Explain.

27. What is micro wave communication? What are its drawbacks?
28. What is communication satellite? What are its advantage and disadvantages?
29. What is remote sensing? How it is carried out? Give its applications.
30. What are active and passive satellites?
31. What is transmission medium? What are various types of transmission media used for communication systems?
32. What are drawbacks of 2-wire line?
33. What are coaxial cables? What are their main advantages over 2-wire line?
34. What is function of copper mesh in a coaxial cable?

ECO

Measurement of National income. -15 marks

2003-04

1. What is macro-economics?
2. Give an example of a micro-economic study.
3. From the following data calculate National income by income method and expenditure method:

Rs.in crores

a. Compensation of employees	1200
b. Net factor income from abroad	-20
c. Net indirect tax	120
d. Profits	800
e. Private final consumption expenditure	2000
f. Net domestic capital formation	770
g. Consumption of fixed capital	130
h. Rent	400
i. Interest	620
j. Mixed income of self employed	700
k. Net exports	-30
l. Government final consumption expenditure	1100

4. Calculate net national disposable income from the following data:

	Rs.in crores
a. Gross national product at factor cost.	800
b. Net current transfers from rest of the world.	50
c. Net indirect tax	70
d. Consumption of fixed capital	60

e. Net factor income from abroad -10

5. Will the following be included in domestic factor income of India? Give reasons for your answer:

- a. Profits earned by a foreign bank from its branches in India.
- b. Scholarships given by government of India.
- c. Profits earned by a resident of India from his company in Singapore.
- d. Salaries received by Indians working in American Embassy in India.

6. Calculate Net National Disposable Income from the following data:

	Rs. In crores.
a. GDP at market price	1000
b. Net factor income from abroad	-20
c. Net indirect taxes	120
d. Consumption of fixed capital	100
e. Net current transfers from rest of the world	50

7. From the following data calculate National Income by income and expenditure method:

	Rs. In crores.
a. Compensation of employees	600
b. Government final consumption expenditure	550
c. Net factor income from abroad	-10
d. Net exports	-15
e. Profits	400
f. Net indirect tax	60
g. Mixed income of self employed	350
h. Rent	200
i. Interest	310
j. Private final consumption expenditure	1000
k. Net domestic capital formation	385
l. Consumption of fixed capital	65

8. Calculate Net national Disposable income from the following data:

	Rs. In crores
a. GDP at market price	1500
b. Net factor income from abroad	-20
c. Consumption of fixed	100
d. Net current transfers from rest of the world	-30

e. Net indirect taxes 120

9. From the following data calculate National Income by income and expenditure method.

	Rs. In crores
a. Private final consumption expenditure	900
b. Net domestic capital formation	200
c. Compensation of employees	500
d. Mixed income of self-employed	400
e. Government final consumption expenditure	400
f. Net factor income from abroad	-10
g. Profits	220
h. Rent	90
i. Net exports	-25
j. Interest	100
k. Net indirect tax	165
l. Net current transfers from rest of the world	50

2004 -05

10. From the following data about a firm A, calculate net value added at market price by it:

	Rs. In crores.
a. Sales	700
b. Change in stock	40
c. Depreciation	80
d. Net indirect taxes	100
e. Purchase of machinery	250
f. Purchase of intermediate products	400

11. Explain briefly the distinction between:
- Gross domestic product at factor cost and Net national product at market price.
 - National income and Net national disposable income.

12. From the following data, calculate National income and personal disposable income.

	Rs. in crores.
a. Compensation of employees	1200
b. Rent	400
c. Profit	800

d. Consumption of fixed capital	300
e. Mixed income of self-employed	1000
f. Private income	3600
g. Net factor income from abroad	-50
h. Net retained earnings of private enterprises	200
i. Interest	250
j. Net indirect taxes	350
k. Net exports	-60
l. Direct taxes paid by households	150
m. Corporation tax	100

13. From the following data about a firm Y, calculate net value added at market price by it:

	Rs. In crores
a. Sales	300
b. Depreciation	20
c. Net indirect taxes	30
d. Purchase of intermediate products	150
e. Change in stock	-10
f. Purchase of machinery	100

14. From the following data, calculate National income and Personal disposable income:

	Rs. In crores.
a. Compensation of employees	800
b. Rent	300
c. Profit	700
d. Consumption of fixed capital	80
e. Mixed income of self-employed	600
f. Private Income	2500
g. Net factor income from abroad	(-)50
h. Interest	500
i. Net Indirect taxes	150
j. Net exports	(-)40
k. Direct taxes paid by households	70
l. Corporation Taxes	100

15. From the following data about a firm 'A', calculate net value added at market price by it:

Rs.

(i) Sales	850
(ii) Change in stock	(-)30
(iii) Depreciation	70
(iv) Net indirect taxes	80
(v) Purchase of machinery	300
(vi) Purchase of intermediate products	450

16. From the following data, calculate (a) National Income (b) Personal disposable income:

	Rs in crores
(i) Compensation of employees	1000
(ii) Rent	200
(iii) Profit	500
(iv) Consumption of fixed capital	100
(v) Mixed income of self - employed	800
(vi) Private Income	2000
(vii) Net factor income from abroad	(-)5
(viii) Net retained earnings of private enterprises	150
(ix) Interest	250
(x) Net Indirect taxes	160
(xi) Net exports	(-)40
(xii) Direct taxes paid by households	120
(xiii) Corporation tax	200

17 Give one reason why macro economics and micro economics are interdependence.

18. Define macro economics.

19. Calculate gross value added at Factor cost from the following data:

	Rs. In crores
(i) Change in stock	30
(ii) Exports	15
(iii) Net indirect taxes	30
(iv) Depreciation	20
(v) Intermediate cost	200
(vi) Value of output	300

20. Calculate (a) National Income and (b) Gross national disposable income from the following data:

	Rs.in crore
a. Current transfers from government	80
b. Net exports	20
c. Net factor income from abroad	20

d. Government final consumption expenditure	300
e. Change in stock	10
f. Subsidies	30
g. Private final consumption expenditure	740
h. Consumption of fixed capital	50
i. Net current transfers from the rest of the world	40
j. Indirect taxes	100
k. Net domestic fixed capital formation	120

21. Calculate Net value added at factor cost from the following data:

	Rs. In crores.
I. Intermediate cost	100
II. Exports	15
III. Change in stock	30
IV. Depreciation	25
V. Value of output	200
VI. Net indirect taxes	20

22. Calculate National income and Gross national disposable income from the following data:

	Rs.in crores
I. government final consumption expenditure	400
II. Consumption of fixed capital	70
III. Net factor income from abroad	-30
iv. Indirect taxes	150
v. Subsidies	40
vi. Net domestic fixed capital formation	150
vii. Net current transfers from the rest of the world	50
viii. Private final consumption expenditure	860
ix. Current transfers from govt.	100
x. Change in stock	-20
xi. Net exports	-40

2005 - 06

23. What is macro-economics all about ?

24. Define micro-economics.

25. Calculate Personal Disposable Income from the following data:

	Rs. In crores.
i. Net current transfers from the rest of the world	3
ii. Private income	200

iii.	Personal taxes	30
iv.	National debt interest	5
v.	Corporate profit tax	20
vi.	Undistributed profits	10

26. Giving reason, state whether the following are included in national income:

- i. Transport expenses by a firm.
- ii. Expenditure on construction of a house.
- iii. Gift received from employer.
- iv. Purchase of a machine by a factory.
- v. Salary received by an Indian resident working in U.S. embassy in New Delhi.
- vi. Interest paid on loan taken to buy a personal car.

27. Calculate National income and Net national disposable income from the following data:

	Rs. In crores.	
i.	Net current transfers from the rest of the world	5
ii.	Private final consumption expenditure	300
iii.	Net factor income paid to abroad	10
iv.	Government final consumption expenditure	100
v.	Subsidies	20
vi.	Net domestic fixed capital formation	80
vii.	Indirect tax	70
viii.	Net exports	-40
ix.	Change in stocks	20
x.	Current transfers from government	15

2006 - 07

28. Define macro-economics.

29. Give two examples of macro - economic variables.

30. From the following data calculate gross value added at factor cost:

	Rs. in crores.	
i.	Net indirect tax	20
ii.	Purchase of intermediate products	120
iii.	Purchase of machines	300
iv.	Sales	250
v.	Consumption of fixed capital	20
vi.	Change in stock	30

31. Calculate Private income and Personal disposable income from the following data

Rs. In crores.

i.	Income from property and entrepreneurship Accruing to government administrative dept.	500
ii.	Saving of non- departmental public enterprises	100
iii.	Corporation tax	80
iv.	Income from domestic product accruing to Private sector .	4500
v.	Current transfers from government adm.dept.	200
vi.	Net factor income from abroad	-50
vii.	Direct personal taxes	150
viii.	Indirect tax	220
ix.	Current transfers from rest of the world	80
x.	Savings of private corporate sector	500

32. From the following data calculate net national product at factor cost by income method and expenditure method:

Rs. In crores.

1.	Current transfers from the rest of the world	100
2.	Government final consumption expenditure	1000
3.	Wages and salaries	3800
4.	Dividend	500
5.	Rent	200
6.	Interest	150
7.	Net domestic capital formation	500
8.	Profits	800
9.	Employer's contribution to social security schemes	200
10.	Net exports	-50
11.	Net factor income from abroad	-30
12.	Consumption of fixed capital	40
13.	Private final consumption expenditure	4000
14.	Net indirect tax	300

33. Will the following factor incomes be a part of domestic factor income of India? Give reasons for your answer.

1. Profit earned by foreign banks from their branches in India.
2. Salary received by Indian residents, working in American embassy in India.
3. Profits earned by an Indian company from its branch in Singapore.

4. Compensation of employees given to residents of China working in Indian embassy in China.

2006 - 07

34. Is the study of the problems of agricultural labour in India a macro economics study?

35. Define macro economics.

36. Calculate net national disposable income from the following data:

	Rs.
1. Net current transfers from the rest of the world	20
2. Net domestic product at factor cost	800
3. Net indirect taxes	70
4. Net domestic capital formation	60
5. Net factor income from abroad	-10

37. State the steps taken in the value added method of measuring national income.

38. Calculate Private income and Personal Disposable income from the following data:

	Rs.in crores
1. Savings of the private corporate sector	500
2. Savings of Non - departmental public enterprises	200
3. Capital transfers from the rest of the world	50
4. Current transfers from the govt. adm. Dept.	100
5. Corporation tax	150
6. Income from domestic product accruing to the Private sector	3500
7. Net indirect taxes	300
8. Net factor income from abroad	-30
9. Current transfers from the rest of the world	40
10. Direct personal taxes	110

2007 -08

39. Calculate Net value added at factor cost from the following data:

	Rs. In crores
1. Depreciation	20
2. Intermediate cost	90
3. Subsidy	5
4. Sales	140
5. Exports	7
6. Change in stock	-10

- | | |
|-----------------------------|---|
| 7. Imports of raw-materials | 3 |
|-----------------------------|---|
40. Calculate National income and private income from the following data:
- | | Rs. In crores |
|--|---------------|
| 1. Net current transfers to the rest of the world | 10 |
| 2. Private final consumption expenditure | 600 |
| 3. National debt interest | 15 |
| 4. Net exports | -20 |
| 5. Current transfers from govt. | 5 |
| 6. Net domestic product at factor cost accruing to govt. | 25 |
| 7. Govt. final consumption expenditure | 100 |
| 8. Net indirect tax | 30 |
| 9. Net domestic capital formation | 70 |
| 10. Net factor income from abroad | 10 |
41. Giving reasons, explain how the following are treated in estimating national income:
1. Wheat grown by a farmer but used entirely for family's consumption.
 2. Earnings of the shareholders from the sales of shares.
 3. Expenditure by government on providing free education.

2008 - 09

42. Give the meaning of factor income to abroad and factor income from abroad. Also give an example of each.

OR

Distinguish between domestic product and national product. When can domestic product be more than national product?

43. While estimating national income, how will you treat the following? Give reasons for your answer :

1. Imputed rent of self occupied houses.
2. Interest received on debentures.
3. Financial help received by flood victims.
4. Capital gain on sale of a house.
5. Prize won in a lottery.
6. Interest on public debt.

44. From the following data, calculate national income by income method and expenditure method:

	Rs.in crores
1. Interest	150
2. Rent	250
3. Govt. final consumption expenditure	600
4. Private final consumption expenditure	1200
5. Profits	640

6. Compensation of employees	1000
7. Net factor income to abroad	30
8. Net indirect taxes	60
9. Net exports	-40
10. Cons. Of fixed capital	50
11. Net domestic capital formation	340

Compt. 2008-09

45. Calculate personal income:

Rs. In crores

1. PDI	300
2. Miscellaneous receipts of govt. adm.dept.	50
3. Corporate profit tax	10
4. Retained earnings of private corporations	20
5. Personal tax	30

46. Find NI and NNDI

Rs in crores

1. Exports	25
2. Govt. final cons. Expenditure	300
3. NCTROW	-10
4. NDFCF	200
5. NFIA	20
6. Private final cons. Expenditure	1000
7. NIT	30
8. Opening Stock	60
9. Net imports	30
10. Closing stock	50

47. Give reasons, explain whether the following are included in domestic product of India:

1. Profits earned by a branch of foreign bank in india.
2. Payment of salaries to its staff by an embassy located in New Delhi.
3. Interest received by an Indian resident from firms abroad.

2009 -10

48. Distinguish between real and nominal gross domestic product.

OR

Giving reasons, classify the following into intermediate and final goods:

1. Machines purchased by a dealer of machines.
2. A car purchased by a household.

49. How will you treat the following while estimating national income of India? Give reasons for your answer.

1. Dividend received by a foreigner from investment in shares of an Indian company.
2. Profits earned by a branch of an Indian bank in Canada.
3. Scholarship given to Indian students studying in India by a foreign company.

OR

Explain the problem of double counting in estimating national income, with the help of an example. Also explain two alternative ways of avoiding the problem.

50. Calculate (a) Gross domestic product at market price, and (b) Factor income from abroad from the following data:

	Rs.
1. Profits	500
2. Exports	40
3. Compensation of employees	1500
4. Gross National Product at factor cost	2800
5. Net current transfers from rest of the world	90
6. Rent	300
7. Interest	400
8. Factor income to abroad	120
9. Net indirect taxes	250
10. Net domestic capital formation	650
11. Gross fixed capital formation	700
12. Change in stock	50

51. From the following data calculate same as above:

1. Compensation of employees	1000
2. Net exports	-50
3. Profits	400
4. Interest	250
5. Rent	150
6. Gross domestic capital formation	220
7. Gross national product at factor cost	1850
8. Net fixed capital formation	150
9. Change in stock	20
10. Factor income from abroad	30
11. Net indirect taxes	100

52. From the following data calculate (a) Gross domestic product at market price, and (b) Factor income from abroad:

1. Gross national product at factor cost	6150
2. Net exports	-50
3. Compensation of employees	3000
4. Rent	800
5. Interest	900
6. Profit	1300
7. Net indirect taxes	300
8. Net domestic capital formation	800
9. Gross fixed capital formation	850
10. Change in stock	50
11. Dividend	300
12. Factor income to abroad	80

COMP 2009 -10

Q. Define capital goods.

Q. Calculate Net National disposable Income and Personal Disposable Income:

	Rs.in
crores	
1. Net current transfers to abroad	20
2. Domestic product accruing to govt.	90
3. Corporate tax	20
4. Personal tax	40
5. Current transfers by govt.	30
6. Net indirect tax	120
7. Net factor income from abroad	-10
8. National debt interest	50
9. Retained earning of private corporations	10
10. National Income	900

Q. Distinguish between 'intermediate and final goods'. Give two examples of each.

OR

Giving reason, explain how are the following treated in estimation of national income by the income method:

1. Interest paid by banks to depositors.
2. National debt interest.

Q. Calculate National Income by the expenditure method and the Income method:

Rs. In crores

1. Net indirect tax	120
2. Net factor income paid to abroad	10
3. Wages and salaries	320
4. Rent	35
5. Net domestic fixed capital formation	40
6. Royalty on land	15
7. Private final consumption exp.	500
8. Interest	60
9. Change in stocks	-10
10. SSE by employers	30
11. Govt. final consumption exp.	100
12. Profit	50
13. Net exports	0

Q. Calculate GNDI and Personal Income

	Rs. In crores
1. NFIA	-50
2. NIT	110
3. CTG	40
4. Corporate tax	60
5. NDP at f.c.	800
6. NDI	80
7. Net CT to abroad	10
8. CFC	50
9. Domestic product acc. to govt.	70
10. Retained earnings of private Corporation.	10

Q. Calculate NDP at factor cost by expenditure and production method.

	Rs. In crores
1. V.O. in eco. Territory	4100
2. Net imports	-50
3. IC by Primary sector	600
4. Pvt. final cons. Exp.	1450
5. IC by sec. sector	700
6. Govt. final cons.exp.	400
7. Net domestic fixed capital Formation	200
8. IC by the tertiary sector	700

9. Net change in stocks	-50
10. Indirect tax	100
11. CFC	50

Q. Calculate NNDI and Personal Disposable Income

	Rs. In crores
1. NFI to abroad	50
2. CTG	30
3. Corporation tax	60
4. Net CTROW	-20
5. Undistributed profit	10
6. NDP at f.c.	1020
7. National disposable income	40
8. Personal tax	70
9. DP acc. to govt.	200
10. Indirect tax	100

Q. Calculate GNP at m.p. by Production method and income method:

	Rs. In crores
1. V.O. of Primary sector	1000
2. Indirect tax	200
3. Compensation of employees	780
4. NFI to abroad	100
5. IC by all sector	2900
6. Rent	300
7. V.O. of Secondary sector	2000
8. Subsidy	50
9. Interest	600
10. CFC	120
11. V.O. of tertiary sector	3000
12. Profits	320
13. MISE	830

2010 -11

Q. What are stock variables?(1)

Q. Define Depreciation.(1)

Q. Explain how non - monetary exchanges are a limitation in taking gross domestic product as an index of welfare.(3)

Q. Giving reasons, explain the treatment assigned to the following while estimating national income: (4)

1. Family members working free on the farm owned by the family.
2. Payment of interest on borrowings by general government.

Q. Giving reasons, explain the treatment assigned to the following while estimating national income:

1. Social security contribution by employees.
2. Pension paid after retirement.

Q. Giving reasons, explain the treatment assigned to the following while estimating national income

1. Expenditure on maintenance of a building.
2. Expenditure on adding a floor to the building.

Q. Calculate (a) Net Domestic product at factor cost and (b) Private income from the following: (6)

	Rs.in crores
1. Domestic product accruing to government	300
2. Wages and salaries	1000
3. Net current transfers to abroad	-20
4. Rent	100
5. Interest paid by the production units	130
6. National debt interest	30
7. Corporation tax	50
8. Current transfers by government	40
9. Contribution to social security by employers	200
10. Dividends	100
11. Undistributed profits	20
12. Net factor income to abroad	0

Q. Calculate (a) 'Net National Product at Market Price' and (b) 'Private Income' from the following:

	Rs.in crores
1. Net current transfers to abroad	30
2. Mixed income	600
3. Subsidies	20
4. Operation surplus	200
5. National debt interest	70
6. Net factor income to abroad	10
7. Compensation of employees	1400
8. Indirect tax	100
9. Domestic product accruing to government	350
10. Current transfers by government	50

Q. Calculate (a) 'Gross National Product at Market Price' and (b) 'Personal Disposable Income' from the following:

	Rs.in crores
1. Net factor income to abroad	10
2. Private income	1700
3. Operating surplus	300
4. Corporation tax	150
5. Undisturbed profits	30
6. Mixed income	500
7. Consumption of fixed capital	100
8. Personal taxes	200
9. Compensation of employees	1200
10. Net indirect tax	250

2011-12

1. (a) Giving reason, explain how the following should be treated while estimating national income? Give reasons for your answer.
 - (i) Expenditure on free services provided by government.
 - (ii) Payment of interest by a government firm.
- (b) How should the following be treated while estimating National Income? Give reasons for your answer.
 - (i) Expenditure on education of children by a family.
 - (ii) Payment of electricity bill by a school.
- © Should the following are treated as final expenditure or intermediate expenditure? Give reasons for your answer.
 - (i) Purchase of furniture by a firm.
 - (ii) Expenditure on maintenance by a firm.

2. Define consumption goods.(1)

3. Define flow variable. (1)

4. (a) Find Gross Value Added at Factor Cost: (3)

	Rs.in crores
(i) Units of output sold	2000
(ii) Price per unit of output	20
(iii) Depreciation	2000
(iv) Change in stock	(-)500
(v) Intermediate costs	15000
(vi) Subsidy	3000

(b) Find Net Value Added at Market Price: (3)

Rs. In crores

(I)	Depreciation	700
(ii)	Output sold (units)	900
(iii)	Price per unit of output	40
(iv)	Closing stock	1000
(v)	Opening stock	800
(vi)	Sales tax	3000
(vii)	Intermediate cost	20,000

(c) Find out Net value added at factor cost: (3)

	Rs. In crores	
(I)	Price per unit of output	25
(ii)	Output sold (units)	1000
(iii)	Excise duty	5000
(iv)	Depreciation	1000
(v)	Change in stocks	(-) 500
(vi)	Intermediate costs	7000

5. (a) Find out (i) National Income and (ii) Net National Disposable Income: (6)

	(Rs.in crores)	
(i)	Net imports	(-) 10
(ii)	Net domestic fixed capital formation	100
(iii)	Private final consumption expenditure	600
(iv)	Consumption of fixed capital	60
(v)	Change in stocks	(-)50
(vi)	Government final consumption expenditure	200
(vii)	Net factor income to abroad	20
(viii)	Net current transfers to abroad	30
(ix)	Net indirect tax	70
(x)	Factor income from abroad	10

6. Find out (i) Gross National Product at Market Price and (ii) Net current transfers to abroad: (6)

	Rs.in crores	
(i)	Private final consumption expenditure	1000
(ii)	Depreciation	100
(iii)	Net national disposable income	1500
(iv)	Closing stock	20
(v)	Government final consumption expenditure	300
(vi)	Net indirect tax	50
(vii)	Opening stock	20

(viii)	Net domestic fixed capital formation	110
(ix)	Net exports	15
(x)	Net factor income to abroad	-10

HOTS HIGHER ORDER THINKING SKILLS QUESTIONS

Q.1. In the following cases, indicate which currency is appreciating and which one is depreciating:

- (i) A change from $3\$ = 2\text{£}$ to $4\$ = 2\text{£}$.
- (ii) A change from $\text{₹}95 = 2 \text{ US \$}$ to $? 150 = 3 \text{ US \$}$.
- (iii) A change from $\text{₹}140 = 2 \text{ £}$ to $? 60 = 1 \text{ £}$.
- (iv) A change from $\text{₹}52 = 1 \text{ Singapore \$}$ to $? 50 = 1 \text{ Singapore \$}$.

Ans. (i) £ is appreciating and \$ is depreciating,

(ii) \$ is appreciating and ₹ is depreciating,

(iii) ₹ is appreciating and £ is depreciating,

(iv) ₹ is appreciating and Singapore \$ is depreciating.

Q.2. State whether the following items constitute demand or supply of foreign exchange:

- (i) Indian going to USA for medical treatment,
- (ii) Donation of 500 Million \$ received from Microsoft,
- (iii) Import of goods from China,
- (iv) Indian students going to Australia for MBA.
- (v) Foreign Tourists to India to visit Taj Mahal,
- (vi) Purchase of land in England,
- (vii) Bought 500 Pounds to sell for speculation.

Ans. Demand for Foreign Exchange: (i); (iii); (iv); (vi); and (vii). Supply of Foreign Exchange: (ii); (v).

Q. 3. Why does demand for foreign exchange arise for speculative activities?

Ans. Demand for foreign exchange arises when people want to speculate on the value of foreign currency. Speculators demand foreign currency in the present period with the aim of selling it in future at higher prices. For example, Manish purchases 1,000 US\$ at ₹ 70 per dollar with the

expectation of selling the dollars at higher prices.

Q. 4. Why does the demand for foreign currency fall and supply rises when its price rises? Explain. {CBSE, Delhi 2017}

Ans. When price of foreign exchange rises, import becomes costlier, demand for imports will fall. As a result demand for foreign currency falls.

Ans. When price of foreign exchange rises domestic goods become cheaper for foreign buyers, because they can now buy more from one unit of foreign currency. As a result demand for exports rise, leading to increase in supply of foreign exchange.

Q. 5. Visits to foreign countries for sightseeing etc. by the people of India is on the rise. What will be its likely impact on foreign exchange rate and how? {CBSE, Delhi 2014 (II)}

Ans. Visits to foreign countries will raise the demand for foreign exchange. Supply of foreign exchange remaining unchanged, exchange rate is likely to rise.

Q.6. How does giving incentives for exports influence foreign exchange rate? Explain. {CBSE, Delhi 2014 (III)}

Ans. Incentives for exports are aimed at increasing exports. Increase in exports will bring more foreign exchange into the country. Demand for foreign exchange remaining unchanged, exchange rate is likely to fall.

Q.7. Foreign exchange rate in India is on the rise recently. What impact is it likely to have on exports and how? {CBSE, All India 2014 (I)}

Ans. Rise in foreign exchange rate means that one unit of foreign currency is worth more rupees than earlier. So one unit of foreign currency can now buy more goods and services from India. It makes Indian exports cheaper to the foreign buyers. This is likely to increase exports.

Q.8. The central bank takes steps to control rise in the price of foreign exchange. Explain the economic values it involves as far as the common man is concerned. {CBSE, Delhi Comptt. 2014}

Ans. Controlling rise in price of foreign exchange makes imports cheaper.

The economic value is that common man now has to pay less for goods and services imported.

Q. 9. Government takes measures to restrict autonomous imports of gold. Explain the economic values desired to be achieved from this. {CBSE, All India Comptt. 2014}

Ans. Restricting autonomous imports of gold will reduce the foreign exchange demand. It will reduce 1m foreign exchange payments. Since autonomous payments decline, BOP deficit will decline. This decline will reduce pressure of deficit and it is the economic value realised.

Q. 10. What will be the effect of foreign investments in India on exchange rate? Explain. {CBSE, Delhi 2016}

Ans. Foreign investment adds to supply of foreign exchange. Demand remaining unchanged, it brings downward influence on the exchange rate.

Q. 11. Why are foreign exchange rate and supply of foreign exchange directly related? Explain. {CBSE, Delhi Comptt. 2016}

Ans. When foreign exchange rate rises, domestic goods becomes cheaper for foreign buyers. This raises demand for exports, causing rise in supply of foreign exchange. Similarly, when foreign exchange rate falls, domestic goods become costlier for foreign buyers, decreasing demand for the exports, causing fall in supply of foreign exchange.

Q. 12. 'Devaluation and Depreciation of currency is one and the same thing'. Do you agree? How do they affect the exports of a country?

{CBSE, Sample Paper 2018}

Ans. Depreciation and Devaluation both imply a fall in external value of a currency. However, the term 'Depreciation' is used under the floating exchange rate system, that is when the exchange rate system is determined by the combined market forces of demand and supply. A currency loses or gains value because of fluctuations in demand and supply.

The term 'Devaluation' is used in a system of fixed exchange rates. In this system, the exchange value of a currency is decided by the government.

Devaluation of currency is the deliberate action of the government.

Depreciation and Devaluation of a currency normally encourages exports from a country as exports become cheaper for the foreign nationals and foreign currency can now buy more of domestic goods i.e. the international competitiveness of the goods and services of such a nation gets better.

Q. 13. The Indian Government launched 'Incredible India' or 'Atulya Bharat' Campaign to promote tourism in India. How will it affect the price of foreign exchange?

Ans. The launch of 'Incredible India' campaign will lead to increase in supply of the foreign exchange in India (due to increase in foreign tourists). It will result in decrease in price of the foreign exchange.

Q. 14. A policy initiated by the Indian Government had an adverse impact on the value of Rupee in relation to foreign exchange. What does this indicate? Discuss this with the help of a numerical example. Also explain its effect on the exports and imports of the economy.

Ans. Adverse Impact on the value of Rupee in relation to Foreign Exchange is known as 'Depreciation' of domestic currency.

Numerical Example: Suppose, earlier, $1\$ = ₹70$. If after the policy, the exchange rate changes to $1\$ = ₹75$, then it indicates that rupee has depreciated.

Effect on Exports: Due to depreciation of domestic currency, more goods can be purchased from India with same amount of foreign currency. It means, exports from India will increase as they will become relatively cheaper.

Effect on Imports: It will result in decrease in imports as foreign goods will become costlier now.

REVISION EXERCISE

Multiple Choice Questions (MCQs)

- Which of the following items raises the supply of foreign exchange?
 - Import of goods from China
 - Indian students going to USA for MBA
 - Donation of 50 million \$ received from Microsoft
 - Purchase of land in England
- A change from ₹ 140 = 2 £ to ₹ 60 = 1 £ indicates that ₹ is:
 - Appreciating
 - Depreciating
 - Neither (a) nor (b)
 - Either (a) or (b)
- _____ refers to a system in which foreign exchange rate is determined by market forces and central bank influences the exchange rate through intervention.
 - Flexible Exchange Rate System
 - Managed Floating Rate System
 - Floating Exchange Rate
 - Fixed Exchange Rate System
- Supply curve of foreign exchange:
 - Horizontal straight line parallel to X-axis
 - Vertical straight line parallel to Y-axis
 - Slope downwards
 - Slope upwards
- Depreciation of domestic currency leads to rise in:
 - Exports
 - Imports
 - Both (a) and (b)
 - Neither (a) or nor (b)
- Imports of goods and services raises the _____ of foreign exchange.
 - Supply
 - Demand
 - Both (a) and (b)
 - Neither (a) nor (b)
- Flexible Exchange Rate System is also known as:
 - Pegged Exchange Rate System
 - Dirty Floating
 - Floating Exchange Rate
 - Both (b) and (c)
- Devaluation of currency means:

- a. Reduction in the value of domestic currency by the market forces
- b. Reduction in the value of domestic currency by the government
- c. Both (a) and (b)
- d. Neither (a) nor (b)

9. Other things remaining unchanged, when in a country the price of foreign currency rises, national income is: (CBSE, Delhi 2015)

- (a) Likely to rise
- (b) Likely to fall
- (c) Likely to rise and fall both
- (d) Not affected

10. Other things remaining the same, when in a country the market price of foreign currency falls, national income is likely:

{CBSE All India 2015}

- (a) to rise
- (b) to fall
- (c) to rise or to fall
- (d) to remain unaffected

11. Other things remaining the same, when foreign currency becomes cheaper, the effect on national income is likely to be:

{CBSE, Foreign 2015}

- (a) Positive
- (b) Negative
- (c) Positive and negative both
- (d) No effect

12. The value of US Dollar \$1 has gone down from ₹ 73 to ₹ 70. It means that:

- (a) Indian rupee has appreciated
- (b) US Dollar has depreciated
- (c) Both (a) and (b)
- (d) None of these

Ans. 1. (c); 2. (a); 3. (b); 4. (d); 5. (a); 6. (b); 7. (c); 8. (b); 9. (a); 10. (b); 11. (b); 12. (c)

Short Answer Type Questions (3-4 Marks each)

1. Give the meaning of: (i) Foreign Exchange; (ii) Foreign Exchange Rate; (iii) Foreign Exchange Market.

2. What is meant by foreign exchange rate? Give three reasons why people desire to have foreign exchange. {CBSE, Delhi 2005}

3. Give two reasons for rise in demand for a foreign currency when its

price falls. {CBSE, Sample Paper 2008}

4. Give three sources each of demand and supply of foreign exchange.

{CBSE, Delhi 2006, Sample Paper 2008, All India Comptt. 2016}

OR

Explain two sources each of demand and supply of foreign exchange.

{CBSE, Delhi 2009}

5. Why does the demand curve of foreign exchange slope downwards?

6. Giving two examples explain the relation between the rise in price of a currency and its demand. {CBSE, Delhi 2010 (III)}

7. What is meant by foreign exchange rate? Why does a rise in foreign exchange rate cause a rise in its supply? {CBSE, Delhi 2007, 08}

8. Briefly discuss the concepts of currency appreciation and currency depreciation.

9. Explain how 'Depreciation of currency' promotes exports of a country?

{CBSE, Sample Paper 2017}

OR

Explain the effect of rise in price of foreign currency on exports.

{CBSE, Delhi Comptt. 2015 (III)}

10. Explain the effect of appreciation of domestic currency on imports.

{CBSE, Sample Paper 2014, Delhi 2013}

11. Distinguish between devaluation and depreciation of domestic currency. {CBSE, Delhi 2010 (I, II), Delhi Comptt. 2018}

12. What is meant by fixed exchange rate system and flexible exchange rate system?

OR

What are fixed and flexible exchange rates? {CBSE, All India 2015}

13. Write short notes on: (i) Spot market; (ii) Forward market.

14. Distinguish between fixed and flexible exchange rate.

{CBSE, Foreign 2009 (III)}

15. When price of a foreign currency rises, its supply also rises. Explain why.

{CBSE, Delhi 2011}

16. Explain why there is a rise in demand for foreign exchange when its price falls. {CBSE, All India Comptt. 2011 (I)}

17. Give the meaning of foreign exchange rate. How is it determined under flexible exchange rate regime?

{CBSE, All India Comptt. 2011 (II)}

18. Explain the effect of a fall in the price of foreign currency on exports.

{CBSE, Delhi Comptt. 2012 (I)}

19. How is exchange rate determined in the foreign exchange market? Explain. {CBSE, All India 2013}

20. In India, exchange rate of U.S. Dollar has been risen considerably. What is its likely impact on Indian exports and why?

{CBSE, Delhi Comptt. 2013}

21. Foreign exchange rates have risen considerably in a country. What is its likely impact on imports of that country and why?

{CBSE, All India Comptt. 2013}

22. When foreign exchange rate in a country is on the rise, what impact is it likely to have on imports and how? {CBSE, All India 2014 (II)}

23. Explain the effect of appreciation of domestic currency on exports.

{CBSE, All India 2014 (III)}

24. What is depreciation of Rupee? What is its likely impact on Indian imports and how? {CBSE, Foreign 2014 (I)}

25. What is the role of a Central Bank in the following exchange rate: (a) Fixed exchange; (b) Floating exchange; and (c) Managed floating.

{CBSE, Sample Paper 2015}

26. Explain the meaning of Managed Floating Exchange Rate.

{CBSE, All India 2015}

27. Why are foreign exchange rate and demand for foreign exchange

inversely related? Explain. {CBSE, Delhi Comptt. 2016}

28. 'Appreciation and Revaluation of currency are one and the same thing.' Do you agree? Comment.

Long Answer Type Questions (6 Marks each)

1. Explain the determination of equilibrium exchange rate in foreign exchange market.

OR

"Equilibrium rate of exchange is determined when the demand for foreign exchange is equal to its supply." Explain this statement.

2. Briefly discuss the major reasons for demand and supply of foreign exchange.

3. What is a foreign exchange market? Discuss the major functions performed by a foreign exchange market.

4. Discuss briefly the meanings of:

(i) Fixed Exchange Rate

(ii) Flexible Exchange Rate

(iii) Managed Floating Exchange Rate {CBSE, Delhi 2018}

5. Give the meaning of 'foreign exchange' and 'foreign exchange rate'. Giving reason, explain the relation between foreign exchange rate and demand for foreign exchange. {CBSE, All India 2012}

6. Explain three sources of demand for foreign exchange and three sources of supply of foreign exchange. {CBSE, Delhi Comptt. 2017}

7. Explain the distinction between the flexible exchange rate and the managed floating exchange rate. {CBSE, Foreign 2017}

8. Explain by giving examples, the distinction between depreciation and devaluation of domestic currency. {CBSE, Foreign 2017}

9. Distinguish between the fixed exchange rate and the floating exchange rate. If exchange rate falls, explain its effects on exports and imports.

{CBSE, All India Comptt. 2017}

Hint: Effect on Exports: If exchange rate falls, domestic goods will become

dearer to the foreign buyers. This will reduce exports.

Effect on Imports: If exchange rate falls, foreign goods will become cheaper and it will increase imports. 10. Define fixed exchange rate. How is the exchange rate determined in a flexible exchange rate system?

{CBSE, All India 2018}

HOTS HIGHER ORDER THINKING SKILLS QUESTIONS

Q.1. Classify whether the following transactions will be recorded in current account or capital account.

- (i) Purchase of shares of Reliance by Microsoft,
- (ii) Imports of computer spare parts from Germany,
- (iii) Borrowings from World Bank.
- (iv) Repayment of loan by Indian Government taken from Japan,
- (v) Gifts received from a relative in America,
- (vi) Purchase of Land in England,
- (vii) Shipping service by an Indian company to a foreign company.

Ans. Current Account: (ii), (v), (vii). Capital Account: (i), (iii), (iv), (vi).

Q.2. A country exported goods worth ₹ 600 crores, whereas, its imports amounted to ₹ 700 crores. Calculate the volume of balance of trade and indicate its nature.

Ans. Balance of Trade (BOT) = Exports - Imports = 600 - 700 = ₹ (-) 100 Crores BOT is unfavorable to the extent of ₹ 100 crores as imports are more than exports.

Q. 3. State whether the following transactions will be recorded on debit or credit side of BOP.

- (i) Loan from IMF to cover deficit of BOP.
- (ii) Indian Government repays loan taken from IMF.
- (iii) Purchase of shares of Infosys by a Japanese resident.

- (iv) Export of Jute to Sri Lanka.
- (v) Acquisition of a foreign company by Tata,
- (vi) Purchase of toys from China.

Ans. Transactions relating to inflow of foreign exchange will be recorded on the credit side and outflows of foreign exchange on the debit side. Debit Side: (ii), (v), (vi); Credit Side: (i), (iii), (iv).

Q.4. Identify the following items as visible items or invisible items:

- (i) Export of computer software.
- (ii) Import of LCD screen from Malaysia.
- (iii) Banking service to NRI.
- (iv) Export of Tea to Thailand,
- (v) Consultancy services of TCS used by a foreign firm.

Ans. Visible Items: (ii), (iv); Invisible Items: (i), (iii), (v).

Q.5. Are the following entered (i) on the credit side or the debit side and (ii) in the current account or capital account in the Balance of Payments account? You must give reason for your answer.

- a. Investments from abroad. (CBSE, All India Comptt. 2013, Delhi Comptt. 2018}
- b. Transfer of funds to relatives abroad {CBSE, All India Comptt. 2013}
- c. Imports of machinery. {CBSE, Delhi Comptt. 2018}

Ans. (a) Investments from abroad: It is recorded in capital account because it creates a liability to pay foreign exchange. It is recorded on credit side because it leads to inflow of foreign exchange.

(b) Transfer of funds to relatives abroad: It is recorded in the current account because it does not change any liability or an asset. It is recorded on debit side because it leads to outflow of foreign exchange.

(c) Imports of machinery: It is recorded as visible items in the current account because it does not change any liability or an asset. It is recorded on debit side because it leads to outflow of foreign exchange.

Q.6. Distinguish between current account and capital account of the

balance of payments account on the basis of its components.

{CBSE, Delhi Comptt. 2014}

Ans. The current account of BOP records: Exports and imports of goods, Exports and imports of services. Income receipts and payments and Transfer receipts and payment.

On the other hand, Capital Account records: Borrowings from and to abroad, Investments from and to abroad and Decrease and increase in foreign exchange reserves.

Q.7. Where will sale of machinery to abroad be recorded in the Balance of Payments Accounts? Give reasons. {CBSE, Delhi 2015}

Ans. Sale of machinery to abroad is export of goods and thus recorded in the Current Account. As it brings in foreign exchange, it is recorded on the credit side.

Q.8. Where is 'borrowings from abroad' recorded in the Balance of Payments Accounts? Give reasons. {CBSE, All India 2015}

Ans. 'Borrowings from abroad' is recorded in the 'capital account' of BOP account because it increases international liability of the country. It is recorded on the credit side because it brings in foreign exchange into the country.

Q.9. Giving reasons explain where charity to foreign countries is recorded in the Balance of Payments Accounts.

{CBSE, Foreign 2015}

Ans. Charity to foreign countries is recorded in the current account of BOP account because it is a transfer payment. It is recorded on the debit side because it leads to outflow of foreign exchange.

Q.10. In which sub-account and on which side of balance of payments account, will foreign investments in India be recorded? Give reasons.

{CBSE, Delhi 2016}

Ans. Foreign investment will be recorded in the capital account of the balance of payments account because these give rise to foreign exchange liabilities.

Foreign investment will be recorded on the credit side because these bring in foreign exchange to the economy.

Q. 11. Indian investors lend abroad. Answer the following questions:

(a) In which sub-account and on which side of the Balance of Payments Account such lending is recorded? Give reasons.

(b) Explain the impact of this lending on market exchange rate.

{CBSE, All India 2016}

Ans. (a) Indians lending abroad is recorded in capital account of Balance of Payments account because it leads to creation of foreign exchange assets. It is recorded on the debit side because it leads to outflow of foreign exchange

(b) Lending abroad increases demand for foreign exchange. Supply of foreign exchange remains unchanged, exchange rate may rise.

Q.12. What will be the effect of the following on the Balance of Payments:

(i) 'Make in India' Programme:

(ii) Import of Pulses. {CBSE, Delhi Comptt. 2016}

Ans. (i) 'Make in India' will increase supply (inflow) of foreign exchange in India, causing improvement in the balance of payments position.

(ii) Import of pulses will lead to outflow of foreign exchange from the country, causing adverse effect on balance of payment position.

Q.13. State the effect of rise in the price of foreign currency on the Balance of Payments situation. {CBSE, All India Comptt. 2016}

Ans. Rise in price of foreign currency will make imports costlier. So, imports will fall and it will be favourable for Balance of Payments as demand for foreign exchange will fall.

Q.14. 'Deficit or Disequilibrium in BOP may occur either due to autonomous transactions or due to accommodating transactions.' Defend or refute.

Ans. The given statement is refuted. Deficit or disequilibrium occurs due to autonomous transactions To remove the deficit, accommodating transactions are carried out.

Q.15. According to recent media reports: 'USA has accused China of currency devaluation to promote its exports'. In the light of the given media report comment, how exports can be promoted through the Currency devaluation? {CBSE, Sample Paper2019}

Ans. USA has a valid point of argument as devaluation of a currency encourages exports of a country. As exported goods become cheaper in the international market giving a competitive edge for the goods of domestic country (China). Devaluation of the value of domestic currency promotes the exports of the country and may adversely impact the production and sale of importing country (USA).

Q.16. What is meant by Current Account Deficit (CAD) and Current Account Surplus (CAS)? State their significance.

{CBSE sample Paper 2019}

Ans. Current Account Deficit (CAD) is a situation that arises when the receipts on current account are less than the payments on current account. In simple words, Current Account Deficit (CAD) arises when the value of exports of goods and services is less than the value of imports of goods and services Current Account surplus (CAS) is a situation that arises when the receipts on current account is more than the payments on current account. In simple words, Current Account Surplus (CAS) arises when the value of exports of goods and services is more than the value of imports of goods and services.

CAD signifies that the nation is a borrower from rest of the world, whereas, CAS signifies that the nation is a lender to the rest of the world.

REVISION EXERCISE

Multiple Choice Questions (MCQs)

1. Who out of the following is not included in "Residents" in BOP transactions?

- | | |
|-------------------------|--------------------------------|
| (a) Firms | (b) Foreign military personnel |
| (c) Government agencies | (d) Individuals |

2. An accounting statement that provides a systematic record of all the economic transactions, between residents of a country and the rest of the world is.

- (a) Balance of Payments
- (b) Balance of Trade
- (c) Government Budget
- (d) None of these

3. Balance of Payments is a concept.

- (a) Stock
- (b) Flow
- (c) Both (a) and (b)
- (d) Neither (a) nor (b)

4. Inflow of foreign exchange is recorded on the.

- (a) Credit
- (a) Debit
- (c) Either (a) or (b)
- (d) Neither (a) nor (b)

5. When receipts of foreign exchange are more than payments of foreign exchange, BOP is:

- (a) Balanced
- (b) Surplus
- (c) Deficit
- (d) Neither (a) nor (b)

6. "Unilateral Transfers" are also known as:

- (a) Bilateral Transfers
- (c) Both (a) and (b)

7. Balance on 'Balance of Trade' can be:

- (a) Surplus
- (b) Balanced
- (c) Deficit
- (d) Either (a) or (b) or (c)

8. Which of the following is not a component of balance of Payment?

- (a) Current account
- (b) Capital Account
- (c) Nominal Account
- (d) None of these

9. Export and import of goods is also known as: (a) Indivisible Trade (c)

One-sided transactions

- (a) Current account
- (b) Visible Trade
- (c) One-sided transactions
- (d) Unrequited transfers

10. refers to the difference between exports and imports of visible items.

- (a) Balance of payments
- (b) Balance of trade
- (c) Both (a) and (b)
- (d) Neither (a) nor (b)

11. Autonomous transactions take place on
- (a) Current Account
 - (b) Capital Account
 - (c) Both (a) and (b)
 - (d) Neither (a) nor (b)
12. Autonomous transactions are undertaken to cover the deficit or surplus in autonomous transactions.
- (a) Current Account
 - (b) Current Account
 - (c) Accommodating
 - (d) None of these
13. _____ is the difference between value of goods sold to the rest of the world and value of goods imported from rest of the world.
- (a) Balance of payment
 - (b) Balance of trade
 - (c) Balance of current account
 - (d) Balance of capital account
14. Gifts and remittances to abroad are recorded on the:
- (a) Credit side of Current Account
 - (b) Debit side of Capital Account
 - (c) Debit side of Current Account
 - (d) Credit side of Capital Account
15. Export of machinery is recorded on the:
- (a) Debit side of Current Account
 - (b) Credit side of Current Account
 - (c) Credit side of Capital Account
 - (d) Debit side Capital Account
16. Surplus in BOP arises when:
- a. Autonomous Payments > Autonomous Receipts
 - b. Accommodating Receipts > Accommodating Payments
 - c. Accommodating Payments > Accommodating Receipts
 - d. Autonomous Receipts > Autonomous Payments
17. Autonomous transactions take place on:
- (a) Current Account only
 - (b) Capital Account only
 - (c) Both Current and Capital Accounts

(d) Neither Current Account nor Capital Account

18. 'Import of Machinery' is recorded in the _____ Account and 'Borrowings from abroad' is recorded in the _____ Account.

- (a) Current, Capital (b) Capital, Current
(c) Capital, Capital (d) Current, Current

19. Foreign exchange transactions dependent on other foreign exchange transactions are called: {CBSE, Delhi 2016}

- (a) Current Account Transactions
(b) Capital Account Transactions
(c) Autonomous Transactions
(d) Accommodating Transaction

20. Foreign exchange transactions which are independent of other transactions in the Balance of Payments Account are called:

{CBSE, All India 2016}

- (a) Current Transactions (b) Capital Transactions
(c) Autonomous Transactions (d) Accommodating Transactions

21. Balance of Payments 'deficit' is the excess of:

{CBSE, Foreign 2016}

- a. Current account payments over current account receipts.
b. Capital account payments over capital account receipts.
c. Autonomous payments over autonomous receipts.
d. Accommodating payments over a accommodating receipts.

22. A company located in India receives a loan from a company located abroad. How is this transaction recorded in India's balance of payments account? (Choose the correct alternative)

{CBSE, Delhi Comptt. 2017}

- (a) Credit side of current account
(b) Debit side of current account
(c) Credit side of capital account
(d) Debit side of capital account

23. An Indian company located in India invests in a company located abroad. This transaction is entered in India's balance of payments account on: (choose the correct alternative)

{CBSE, All India Comptt. 2017}

- (a) Credit Side of Current Account
- (b) Debit Side of Current Account
- (c) Credit Side of Capital Account
- (d) Debit Side of Capital Account

Ans. 1 (b); 2. (a); 3. (b); 4. (a); 5. (b); 6. (b); 7. (d); 8. (c); 9. (b); 10. (b); 11. (c); 12. (c); 13. (b); 14. (c); 15. (b); 16. (d); 17. (c); 18. (a); 19. (d); 20. (c); 21. (c); 22. (c); 23 (d)

Short Answer Type Questions (3-4 Marks each)

1. What is meant by economic transactions? How can they be categorised?
2. Why is it said that the balance of payments is always balanced?
3. Distinguish between balance of trade and balance of payments.

{CBSE, Delhi 2003}

4. What is meant by visible items and invisible items in the Balance of Payments account? Give two examples of invisible items.

{CBSE, Delhi 2005}

What does balance of payments account show? Name the two parts of the balance of payments account.

{CBSE, Delhi 2011 (III)}

4. Distinguish between balance on trade account and balance on current account.

{CBSE, All India 2009, 2011, Delhi 2013}

OR

Distinguish between Balance of trade and Balance on current account of the Balance of Payments account.

{CBSE, All India Comptt. 2014}

OR

Distinguish between trade account and current account of balance of payments account.

{CBSE, All India Comptt. 2015 (III)}

7. Which transactions determine the balance of trade? When is balance of trade in surplus?

{CBSE, All India 2011}

8. Explain the meaning of deficit in a Balance of Payments account.

{CBSE, Sample Paper 2010, All India Comptt. 2013}

OR

How is balance of payment 'deficit' measured? Explain.

{CBSE, Foreign 2014}

9. State the nature of transactions that are recorded in current account of the Balance of Payments account.

{CBSE, Sample Paper 2008}

10. State the components of current account of the Balance of Payments account.

{CBSE, Delhi 2008, Delhi 2011 (II)}

OR

Name the broad categories of transactions recorded in the 'current account' of the Balance of Payments Accounts.

{CBSE, Delhi 2015}

OR

List the items of the current account of balance of payments account. Also define 'balance of trade'.

{CBSE, Delhi 2009}

11. State the components of capital account of balance of payments.

{CBSE, Delhi 2011 (I)}

OR

Name the broad categories of transactions recorded in the 'capital account' of the Balance of Payments Accounts.

{CBSE, Delhi 2015}

12.State any four items each of current account and capital account of the balance of payments account.

{CBSE, Delhi2004}

Distinguish between current account and capital account of balance of payment account. Is import of machinery recorded in current account or capital account?

{CBSE, Sample Paper 2012}

14.Explain the meaning of deficit in balance of payments.

{CBSE, Delhi 2010 (I, II), 20i4f}

15.Distinguish between autonomous and accommodating transactions of balance of payments account

{CBSE, Delhi 2010 (III), All India 2014}

OR

Distinguish between the autonomous transactions and the accommodating transactions in the Balance of Payments. What is the significance of this distinction?

{CBSE, Delhi Comptt. 2013, 20ii}

Hint: Significance of Distinction: The deficit/surplus in Balance of Payments (BOP) is determined z» autonomous transactions only. BOP is said to be in deficit when autonomous receipts fall short of autonomous payments.

16.List the items included as invisibles in the balance of payments account.

{CBSE, All India Comptt. 2012}

17.What does the Balance of Payments Account record? Distinguish between the "balance on currert account" and the "balance of trade" in this account.

{CBSE, Sample Paper 2014}

18.What is meant by "balance of payment" account? Distinguish between the "balance on current account and "balance of trade" account. In which account would remittances from family members from abroad be accounted?

{CBSE, Sample Paper 2015}

19.Give the meanings of 'autonomous' transactions and 'accommodating' transactions in the Balance Payments Accounts.

{CBSE, Foreign 20iz}

20. Indian investors borrow from abroad. Answer the following: (a) In which sub-account and on which side of the Balance of Payments Account will this borrowing be recorded? Give reason; (b) Explain what the impact of this borrowing on exchange rate. *{CBSE, Foreign 2016}*

21. What is meant by 'official reserve transactions'? Discuss their importance in Balance of Payments. *{CBSE, Sample Paper 2018}*

22. Define Balance of Payments. Discuss briefly the components of current account. *{CBSE, Sample Paper 2017}*

Long Answer Type Questions (6 Marks each)

1. What is the meaning of Balance of Payments? What are its main components? Explain them briefly >

2. What is meant by current account? Explain its various components.

3. What do you mean by capital account? Briefly discuss its components.

4. Distinguish between: (i) Balance of Trade and Balance of Payments; (ii) Current Account and Capital Account.

5. Explain the distinction between autonomous and accommodating transactions in balance of payments. Also explain the concept of balance of payments 'deficit' in this context. *{CBSE, Delhi 2012}*

6. Distinguish (a) between current account and capital account, and (b) between autonomous transactions and accommodating transactions of balance of payments account. *{CBSE, All India 2017}*

Example 1. Calculate APC and APS from the following schedule:

Income (Y)	100	200	300
Consumption (C)	80	120	180

Solution:

Income (Y) (₹)	Consumption (C) (₹)	Saving (S) S=Y-C (₹)	APC C ÷ Y=APC	APS S ÷ Y=APS
100	80	20	80 ÷ 100=0.80	20 ÷ 100=0.20
200	120	80	120 ÷ 200=0.60	80 ÷ 200=0.40
300	180	120	180 ÷ 300=0.60	120 ÷ 300=0.40

Example 2. If APC of an economy is 0.8, what should be saving at an income level of ₹ 2,000 crores?

Solution:

We know, $APC + APS = 1$

Given : $APC = 0.80$; So, $APS = 1 - 0.8 = 0.2$

$$\text{Also, } APS = \frac{\text{Saving}(S)}{\text{Income}(Y)} \text{ i.e. } 0.2 = \frac{\text{Saving}(S)}{2,000}$$

Saving = ₹ 400 crores

Example 3.

(i) The disposable income (Y) is ₹ 1200 crores and consumption expenditure (C) is ₹ 800 crores. Calculate the APC.

(ii) If saving is ₹ 500, out of an income of ₹ 5,000, how much is the APS?

(iii) If disposable income is ₹ 1,000 and consumption expenditure is ₹ 750, find out average propensity to save. {CBSE, Delhi 2001}

(iv) If income is ₹ 500 and saving are ₹ 100, calculate APC.

(v) When income rises from ₹ 1,000 to ₹ 1,100, saving rise by ₹ 30. Find out MPS and MPC.

Solution:

$$(i) \text{ APC} = \frac{\text{Consumption}(C)}{\text{Income}(Y)} = \frac{800}{1,200} = 0.67$$

$$(ii) \text{ APS} = \frac{\text{Saving}(S)}{\text{Income}(Y)} = \frac{500}{5,000} = 0.10$$

$$(iii) \text{ APS} = \frac{\text{Saving}(S)}{\text{Income}(Y)} = \frac{1,000 - 750}{1,000} = 0.25$$

$$(iv) \text{ APC} = \frac{\text{Consumption}(C)}{\text{Income}(Y)} = \frac{500 - 100}{500} = 0.80$$

$$(v) \text{ MPS} = \frac{\text{Change in Saving}(\Delta S)}{\text{Change in Income}(\Delta Y)} = \frac{30}{1,100 - 1,000} = 0.30$$

$$\text{MPC} = 1 - \text{MPS} = 1 - 0.30 = 0.70$$

Example 4. Calculate MPC from the following schedule:

Income (Y)	0	100	200	300	400
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Consumption (C)	60	110	150	180	200
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Solution :

Income (Y) (₹)	Consumption (C) (₹)	Change in Consumption (ΔC) (₹)	Change in Income (ΔY) (₹)	MPC $MPC = \Delta C \div \Delta Y$
0	60	-	-	-
100	110	50	100	0.5 (=50÷100)
200	150	40	100	0.40 (=40÷100)
300	180	30	100	0.30 (=30÷100)
400	200	20	100	0.20 (=20÷100)

Example 5. The level of income, in an economy, increases from ₹ 20,000 crores to ₹ 70,000 crores and as a result the level of consumption increases from ₹ 15,000 crores to ₹ 45,000 crores. Calculate the MPC.

Solution:

Income (Y) (₹)	Consumption (C) (₹)	Change in Consumption (ΔC) (₹)	Change in Income (ΔY) (₹)	MPC $MPC = \Delta C \div \Delta Y$
20,000	15,000	-	-	-
70,000	45,000	30,000	50,000	0.60

Example 6. Calculate the value of MPS from the given table:

Income (₹)	100	200	300	400	500
Saving (₹)	15	40	70	110	160

Solution:

Income (Y) (₹)	Saving (S) (₹)	Change in Saving (ΔS) (₹)	Change in Income (ΔY) (₹)	MPC $MPC = \Delta C \div \Delta Y$
100	15	-	-	-
200	40	25	100	0.25=(25÷100)
300	70	30	100	0.30 (=30÷100)

400	110	40	100	0.40 (=40÷100)
500	160	50	100	0.50 (=50÷100)

Example 7. Complete the following table:

Level of Income (₹)	400	500	600	700
Consumption Expenditure (₹)	240	320	395	465
MPC	-	-	-	-
MPS	-	-	-	-

Solution:

Level of Income (Y) (₹)	Consumption Expenditure (C) (₹)	MPC MPC=ΔC÷ΔY	MPC MPC=ΔS÷ΔY
400	240	-	-
500	320	0.80 (=80÷100)	0.20=(1-0.80)
600	395	0.75 (=75÷100)	0.25 (=1-÷0.75)
700	465	0.70 (=70÷100)	0.30 (=1-0.70)

Example 8. Complete the following table {CBSE, Delhi 2009 (I)}

Income	Saving	Marginal Propensity to Consume	Average Propensity to Save
0	-12	-	-
20	-6	-	-
40	0	-	-
60	6	-	-

Solution:

Income (Y) (₹)	Saving (S) (₹)	Consumption (C) (₹)	Marginal Propensity to Consume (MPC) MPC=ΔC÷ΔY	Average Propensity to save (APS) APS=S÷Y
0	-12	12	-	-
20	-6	26	0.70	-0.30

40	0	40	0.70	0.00
60	6	54	0.70	0.10

Example 9. Complete the following table {CBSE, Delhi 2009 (III)}

Income	Consumption	Marginal Propensity to Save	Average Propensity to Save
0	40	-	-
50	70	-	-
100	100	-	-
150	120	-	-

Solution:

Income (Y) (₹)	Consumption (C) (₹)	Saving (S) (₹)	Marginal Propensity to Save MPS = $\Delta S \div \Delta Y$	Average Propensity to save APS = $S \div Y$
0	40	-40	-	-
50	70	-20	0.40	-0.40
100	100	0	0.40	0
150	120	30	0.60	0.20

Example 10. Complete the following table {CBSE, All India 2009 (I)}

Income	Marginal Propensity to Consume	Saving	Average Propensity to Save
0	-	-90	-
100	0.6	-	-
200	0.6	-	-
300	0.6	-	-

Solution:

Income (Y)	MPC	MPS MPS = 1 - MPC	ΔS $\Delta S = \text{MPS} \times \Delta Y$	Saving (S)	APS APS = $S \div Y$
0	-	-	-	-90	-

100	0.6	0.4	40	-50	-0.50
200	0.6	0.4	40	-10	-0.05
300	0.6	0.4	40	30	0.10

Example 11. From the following schedule, compute APC, APS, MPC and MPS:

Income (₹)	500	100	150	200
Saving (₹)	10	40	75	120

Solution:

Income (Y) ₹	Saving (S) ₹	Consumption (C) ₹	APC	APS	MPC	MPS
50	10	40	0.80	0.20	-	-
100	40	60	0.60	0.40	0.40	0.60
150	75	75	0.50	0.50	0.30	0.70
200	120	80	0.40	0.60	0.10	0.90

Formulae used $C=Y-S$; $APC = C \div Y$; $APS = S \div Y$; $MPC = \Delta C \div \Delta Y$; $MPS = \Delta S \div \Delta Y$

Example 12. Given that national income is ₹ 80 crore and consumption expenditure ₹ 64 crore, find out average propensity to save. When income rises to ₹ 100 crore and consumption expenditure to ₹ 78 crore, what will be the average propensity to consume and the marginal propensity to consume?
{CBSE, Delhi 2011(I)}

Solution:

$$\text{Average Propensity to Save} = \frac{\text{Saving}(S)}{\text{Income}(Y)} = \frac{80 - 64}{80} = \frac{16}{80} = 0.20$$

When income rises to ₹ 100 crore and consumption expenditure to ₹ 78 crore

$$\text{Average Propensity to Consume} = \frac{\text{Consumption}(C)}{\text{Income}(Y)} = \frac{78}{100} = 0.78$$

Marginal Propensity to Consume =

$$\frac{\text{Change in Consumption}(\Delta C)}{\text{Change in Income}(\Delta Y)} = \frac{78-64}{100-80} = \frac{14}{20} = 0.70$$

Example 13. The consumption expenditure and investment demand are ₹ 600 crores and ₹ 300 crores respectively, when income is ₹ 1,000 crores. Calculate : (i) AD, (ii) AS (iii) Saving.

Solution :

(i) AD=Consumption expenditure (C) + Investment demand (I)

$$AD=600 + 300 = ₹ 900 \text{ crores.}$$

(ii) We know, aggregate supply (AS) and national income (Y) mean one and same thing.

$$\text{So, AS} = ₹ 1,000 \text{ crores.}$$

(iii) Given AS = 1,000 and C = 600

$$\text{It means, Saving (S)} = Y - C = ₹ 400 \text{ Crores} \quad (\ominus Y=C+S)$$

Ans. (i) AD = ₹ 900 crores; (ii) AS= ₹ 1,000 crores, (iii) Saving = ₹ 400 crores.

Example 14. Using the equation of consumption function: $C=c+b(y)$, calculate consumption expenditure at the income level of ₹ 500 crores, if autonomous consumption is ₹ 40 crores and 40% of additional income is saved.

Solution:

Given: MPS =0.4 (as 40% of additional income is saved

$$\text{MPC or } b = 1 - \text{MPS} = 1 - 0.4 = 0.6$$

Given :Autonomous Consumption (c) = ₹ 40 crores ; Income (Y) = ₹ 500 crores

Putting the values of b, c and Y in the consumption function, we get:

$$C=40+0.6 \times 500 = ₹ 340 \text{ crore}$$

Ans. Consumption Expenditure (C) = ₹ 340 crores

Example 15. The saving curve of an economy makes a negative intercept of ₹ 50 crores and 20% of additional income is saved. Derive the saving and consumption function.

Solution:

Given: Autonomous Consumption (\bar{C}) = ₹ 50 crores;

{Negative intercept of saving curve indicates \bar{C} }

MPS=0.2 (as 20% of additional income is saved)

Saving Function is given as: $S = \bar{C} + (1 - b) Y$

Putting the values of $(1-b)$ or MPS and $-\bar{C}$, we get: **$S = -50 + 0.2(Y)$**

Consumption Function is given as: $C = \bar{C} + b(Y)$

b or MPC = $1 - \text{MPS} = 1 - 0.2 = 0.8$

Putting the values of b and (\bar{C}) in the consumption function, we get: **$C = 50 + 0.8(Y)$**

Example 16. With the help of saving function: $S = -20 + 0.3(Y)$ calculate consumption expenditure at the income level of ₹ 1,000 crores.

Solution:

We know, Saving function is expressed as : $S = -\bar{C} + (1-b) Y$

It means: - 20 indicates that autonomous consumption (\bar{C}) = ₹ 20 crores

(Assuming value of (\bar{C}) in ₹ crores)

0.3 indicates $(1 - b)$, i.e., MPS = 0.3

We know, Consumption Function is given as : $C = \bar{C} + b(Y)$

MPC or $b = 1 - \text{MPS} = 1 - 0.30 = 0.70$

Income or $Y = ₹ 1,000$ crpres

Putting the values of b , (\bar{C}) and Y in the consumption function, we got:

$C = 20 + 0.7 \times 1,000 = ₹ 720$ crores

Ans. Consumption Expenditure (C) = ₹ 720 crores

Example 17. On the basis of consumption function: $C = 120 + 0.40 Y$; answer the following questions:

(i) Derive the saving function.

(ii) Determine the saving at the income level of ₹ 500 crores.

(iii) At what level of income, saving becomes zero?

Solution:

(i) We know, Consumption function is expressed as: $C = \bar{C} + b(Y)$

It means: 120 is the autonomous consumption (\bar{C}) and 0.40 indicates

MPC or b Saving Function is given as: $S = -(\bar{C}) + (1-b)Y$

MPS or $(1-b) = 1 - \text{MPC} = 1 - 0.40 = 0.60$

Putting the values of $(1-b)$ or MPS and $-\bar{C}$, we get: $S = -120 + 0.60(Y)$

(ii) For saving at income (Y) of ₹ 500 crores, putting the values of $(1-b)$, \bar{C} and Y in the saving function, we get: $S = -120 + 0.60 \times 500 = ₹ 180$ crores

(iii) Saving will become zero at break- even point, i.e. when $Y=C$.

Replacing C with Y in the consumption function to determine the break-even point.

$$Y = 120 + 0.40Y$$

$$0.06Y = 120$$

$$Y = 200$$

Saving will become zero at income level of ₹ 200 crores

Example 18. If MPC is one-third of MPS and consumption zero level of national income is ₹ 40 crores, derive the consumption and saving function.

Solution:

$$\text{Given : } \text{MPC} = \frac{1}{3} \text{MPS}$$

$$\text{We know: } \text{MPC} + \text{MPS} = 1$$

Putting value of MPC from (1) in (2), we get:

$$\frac{1}{3} \text{MPS} + \text{MPS} = 1$$

$$\text{MPS} = \frac{2}{4} = 0.75$$

$$\text{MPC} = \frac{1}{3} \times 0.75 = 0.25$$

{ Alternately : $\text{MPC} = 1 - \text{MPS} = 1 - 0.75 = 0.25$

Consumption Function is given as : $C = \bar{C} + b(Y)$

Autonomous Consumption (\bar{C}) = ₹ 40 crores and b or MPC = 0.25

Putting the values of b and \bar{C} in the consumption function, we get: $C = 40 + 0.25(Y)$

Saving Function is given as : $S = -\bar{C} + (1-b)Y$

Putting the values of (1-b) or MPS and \bar{C} , we get: $S = -40 + 0.75(Y)$

Example 19. The consumption function for an economy is: $C = 20 + 0.8Y$ (assuming amount in ₹ crores). Determine the level of income when average propensity to consume will be one.

Solution.

Average propensity to consume (APC) is 1 at break-even point, i.e., when consumption (C) = Income (Y)

Putting $C = Y$ in the consumption function, we get:

$$Y = 20 + 0.8Y$$

$$Y = 100.$$

It means, APC will be 1 when the level of income is ₹ 100 crores.

Note : Proof: Consumption at income of ₹ 100 crores will be: $C = 20 + 0.8 \times 100 = 100.$

$$APC = \frac{\text{Consumption}(C)}{\text{Income}(Y)} = \frac{100}{100} = 1$$

Example 20. The break-even level of income for an economy is given to be ₹ 10,000 crores. If the economy saves 20 per cent of additional income, then calculate the value of autonomous consumption

Solution.

Given: MPS = 0.2

MPC or b = 1 - MPS = 1 - 0.2 = 0.8

Consumption (C) = Income (Y) at Break-even level of income

So, Consumption (C) = 10,000

Consumption Function is expressed as: $C = \bar{C} + b(Y)$

Putting the values of C, b and Y, we get: $10,000 = \bar{C} + 0.8(10,000)$

Autonomous Consumption $\bar{C} = ₹ 2,000$ crores

Example 21. Given below is the consumption function of an economy:

$$C = 100 + 0.5Y.$$

With the help of a numerical example, show that in this economy, as income increases, APC will decrease. {CBSE, Sample Paper 2010}

Solution:

Given consumption function : $C = 100 + 0.5Y$.

To show that APC decreases with increase in income, consider the following hypothetical schedule:

Income (Y) (₹)	Consumption (C) (₹) $C=100+0.5Y$	APC $APC = C \div Y$
100	150(=100+0.5×100)	1.50 (=150÷100)
200	200 (=100+0.5×200)	1 (= 200 ÷ 200)
300	300 (=100+0.5×300)	0.83 (= 250 ÷ 300)
400	400 (=100+0.5×400)	0.75 (=300 ÷ 400)
500	500 (=100+0.5×500)	0.70 (= 350 ÷ 500)

As seen in the given schedule, when the income increases from ₹ 100 crores to ₹ 200 crores and then to ₹ 300 crores and so on, APC decreases from 1.5 to 1 and then to 0.83 and keeps on decreasing with increases in income. Therefore, with an increase in income, APC decreases.

Example 22. If a consumption function a hypothetical economy is given as:

$$C = 100 + 0.6 Y; \text{ then}$$

- (i) What will be the values of marginal propensity to consume and marginal propensity to save for the economy?
- (ii) Write the corresponding saving function.
- (iii) Write the corresponding saving function. {CBSE, All India 2018}

Solution :

(i) $C = 100 + 0.6Y$ (given)

So, $MPC = 0.6$

$MPS = 1 - MPC = 1 - 0.6 = 0.4$

$$(ii) S = -C + (1 - b)Y$$

$$S = -100 + 0.4Y$$

Example 23. Estimate the value of Aggregate Demand in an economy if:

{CBSE, Sample Paper 2019}

(a) Autonomous Investment (I) = 100 crores

(b) Marginal Propensity to Save = 0.2

(c) Level of Income (Y) = 4,000 crores

(d) Autonomous Consumption Expenditure (\bar{C}) = 50 crores

Solution :

Aggregate Demand (AD) function is given as: $AD = C + I$

or, $AD = \{\bar{C} + b(Y)\} + I$

$\bar{C} = 50$ (Given)

b or MPC = $1 - \text{MPS} = 1 - 0.2 = 0.8$

Substituting the values of \bar{C} and b in AD function, we get:

$$AD = \{50 + 0.8(4,000)\} + 100 = ₹ 3,350 \text{ crores}$$

$$\text{Aggregate Demand} = ₹ 3,350 \text{ crores}$$

Q.1. Estimate the value of ex-ante AD, when autonomous investment and consumption expenditure (A) is ₹ 50 crores and MPS is 0.2 and level of income is ₹ 300 crores. {CBSE. Sample Paper 2018}

Ans. MPC = $1 - \text{MPS} = 1 - 0.2 = 0.8$

In a two-sector model, AD is a function of Consumption (C) and

Investment (I).

It means, $AD = C + I$

Also, Consumption Function is given by: $C = \bar{c} + b(Y)$

Where, c = Autonomous Consumption; b = MPC; and Y = Income.

Investments are assumed to be autonomous investments, i.e. $I = \bar{I}$

It means, $AD = \bar{c} + b(Y) + \bar{I}$ or $AD = \bar{c} + \bar{I} + b(Y)$

$AD = A + bY$ [\ominus Total Autonomous Expenditure (A) = $\bar{c} + \bar{I}$]

$AD = 50 + 0.8(300)$

$AD = ₹ 290$ Crores

Practicals on Investment Multiplier

Example 1. Calculate multiplier if MPC is: (i) 0.75; (ii) 0.90

Solution:

$$(i) \text{ Multiplier (k)} = \frac{1}{1 - MPC} = \frac{1}{1 - 0.75} = \frac{1}{1 - 0.25} = 4$$

$$(ii) \text{ Multiplier (k)} = \frac{1}{1 - MPC} = \frac{1}{1 - 0.90} = \frac{1}{1 - 0.10} = 10$$

Example 2. Calculate the value of multiplier if the MPS is: (a) 0.40; (b)

Equal to MPC

Solution:

$$(a) \text{ Multiplier (k)} = \frac{1}{1 - MPC} = \frac{1}{0.40} = 2.5$$

$$(b) \text{ MPS} = \text{MPC, then MPS} = 0.5 \quad [\ominus \text{MPS} + \text{MPC} = 1]$$

$$(b) \text{ Multiplier (k)} = \frac{1}{\text{MPC}} = \frac{1}{0.5} = 2$$

Example 3. In an economy, income generated is four times the increase in investment expenditure. Calculate the values of MPC and MPS.

Solution:

$$\text{Multiplier} = 4$$

{As increase in income (ΔY) is 4 times the increase in investment ΔI }

$$(a) \text{ Multiplier (k)} = \frac{1}{1 - \text{MPC}}$$

$$4 = \frac{1}{1 - \text{MPC}}$$

$$1 - \text{MPC} = \frac{1}{4}$$

$$\text{MPC} = 0.75$$

$$\text{MPS} = 1 - \text{MPC} = 1 - 0.75$$

$$\text{MPS} = 0.25$$

Ans. 0.75; MPS = 0.25

Example 4. In an economy, the marginal propensity to consume is 0.8. If the investment increases by ₹ 1,000 crores, calculate the total increase in income.

Solution:

$$\text{Multiplier (k)} = \frac{1}{1 - \text{MPC}} = \frac{1}{1 - 0.80} = \frac{1}{1 - 0.20} = 5$$

We also know k :
$$k = \frac{\text{Change in Income } (\Delta Y)}{\text{Change in Investment } (\Delta I)}$$

Given: Change in Investment $(\Delta I) = 1,000$ crores

i.e., $5 = \frac{\text{Change in Income } (\Delta Y)}{1,000}$

So, Change in Income $(\Delta Y) = 5,000$ crores

Ans. Total increase in income = 5,000 crores

Example 5. In an economy, 60% of increased income is spent on consumption. If ₹ 4 crores are invested in a project, find out the increase in income and saving.

Solution:

Given MPC = 0.6

(as 60% of increased income is spent on consumption)

Multiplier $(k) = \frac{1}{1 - \text{MPC}} = \frac{1}{1 - 0.6} = 2.5$

We also know k :
$$k = \frac{\text{Change in Income } (\Delta Y)}{\text{Change in Investment } (\Delta I)}$$

Given: Change in Investment $(\Delta I) = ₹ 4$ crores

i.e., $2.5 = \frac{\text{Change in Income } (\Delta Y)}{4}$

So, Change in Income $(\Delta I) = ₹ 10$ crores

MPS = 1 - 0.60 = 0.40

[∅ MPS = 1 - MPC]

$$\text{MPS} = \frac{\text{Change in Saving } (\Delta S)}{\text{Change in Income } (\Delta Y)}$$

$$\text{Change in Saving } (\Delta S) = (\Delta Y) \times \text{MPS} = 10 \times 0.4 = \text{₹ 4 crores}$$

Ans. Increase in income = ₹ 10 crores; Increase in saving = ₹ 4 crores

Example 6. In an economy, the actual level of income is ₹ 500 crores, whereas, the full employment level of income is ₹ 800 crores. If one-fourth of additional income is saved, calculate increase in investment required to achieve full employment level of income.

Given MPC = 0.6

(as one-fourth or 25% of additional income is saved)

$$\text{Multiplier (k)} = \frac{1}{\text{MPS}} = \frac{1}{0.25} = 4$$

$$\text{We also know k:} = \frac{\text{Change in Income } (\Delta Y)}{\text{Change in Investment } (\Delta I)}$$

Given: Change in Investment $(\Delta Y) = 800 - 500 = 300$ crores

$$\text{i.e., } 4 = \frac{300}{\text{Change in Investment } (\Delta I)}$$

Hence, Change in Income $(\Delta I) = ₹ 75$ crores

Ans. Increase in investment required = ₹ 75 crores

Example 7. In an economy, the equilibrium level of income falls short by ₹ 500 crores. Calculate the additional investment needed to achieve the equilibrium level of income, if 80% of increased income is spent on

consumption.

Solution:

Given : MPC = 0.80

(as 80% of additional income is spent on consumption)

$$\text{Multiplier (k)} = \frac{1}{1 - MPC} = \frac{1}{1 - 0.80} = \frac{1}{0.20} = 5$$

$$\text{We also know : } k = \frac{\text{Change in Income } (\Delta Y)}{\text{Change in Investment } (\Delta I)}$$

Given: Increase in Income (ΔY) required = ₹ 500 crores

$$\text{i.e., } 5 = \frac{500}{\text{Change in Investment } (\Delta I)}$$

Hence, Change in Investment (ΔI) = ₹ 100 crores

Ans. Additional Investment required = ₹ 100 crores

Example 8. In an economy, the equilibrium level of income is ₹ 12,000 crores. The ratio of marginal propensity to consume and marginal propensity to save is 3:1. Calculate the additional investment needed to reach a new equilibrium level of income ₹ 20,00 crore.

{CBSE, All India 2010}

Solution:

Ratio of 3:1 between marginal propensity to consume (MPC) and marginal propensity to save (MPS) signifies: $MPC = \frac{3}{4}$ or 0.75 and

MPS $\frac{1}{4}$ or 0.25.

$$\text{Multiplier (k)} = \frac{\text{Change in Income } (\Delta Y)}{\text{Change in Investment } (\Delta I)}$$

Given: Change in Income $(\Delta Y) = 20,000 - 12,000 = ₹ 8,000$ crores

$$\text{i.e., } 4 = \frac{8,000}{\text{Change in Investment } (\Delta I)}$$

Given : Change in Income $(\Delta I) = ₹ 2,000$ crores

Ans. Additional Investment needed is ₹ 2,000 crores

Example 9. Calculate MPS and Multiplier (k) from the following data:

Income (₹)	100	200
Saving (₹)	40	100

Solution:

Income (Y) (₹)	Saving (S) (₹)	Change in Saving (ΔS) (₹)	Change in Income (ΔY) (₹)	MPS ($\Delta S \div \Delta Y$)	Multiple (k) $1 \div \text{MPS}$
100	40	-	-	-	-
200	100	60	100	0.60	1.67 (= $1 \div 0.60$)

Ans. MPS = 0.60; Multiplier (k) = 1.67

Example 10. In an economy, marginal propensity to consume is 0.75. If investment expenditure is increased by ₹ 500 crores, calculate the total increase in income and consumption expenditure. {CBSE, Delhi 2004}

Solution:

$$\text{Multiplier (k)} = \frac{1}{1-MPC} = \frac{1}{1-0.75} = \frac{1}{0.25} = 4$$

$$\text{We also know: } k = \frac{\text{Change in income}(\Delta Y)}{\text{Change in Investment}(\Delta I)}$$

$$4 = \frac{\text{Change in Income}(\Delta Y)}{500}$$

So, Change in Income (ΔY) = ₹ 20,000 crores

$$\text{MPC} = \frac{\text{Change in Consumption}(\Delta C)}{\text{Change in Income}(\Delta C)}$$

$$0.75 = \frac{\text{Change in Consumption}(\Delta C)}{2,000}$$

So, Change in Consumption (ΔC) = ₹ 1,500 crores

Ans. Total increase in income = ₹ 2,000 crores; Total increase in Consumption Expenditure = ₹ 1,500 crores

Example 11. An increase of ₹ 200 crore in investment leads to a rise in national income by ₹ 1000 crores. Find out marginal propensity to consume. {CBSE, Delhi 2007}

$$\text{Multiplier (k)} = \frac{\text{Change in Income}(\Delta Y)}{\text{Change in Investment}(\Delta I)} = \frac{1,000}{200} = 5$$

We know, Multiplier (k) = $\frac{1}{1-MPC}$

$$5 = \frac{1}{1-MPC}$$

$$1-MPC = \frac{1}{5}$$

Hence, MPC = 1 - 0.20 = 0.80

Ans. Marginal Propensity to Consume (MPC) = 0.80

Example 12. As a result of increase in investment by ₹ 125 crores, national income increase by ₹ 500 crores. Calculate marginal propensity to consume. {CBSE, Delhi 2008

(I)}

Solution :

$$\text{Multiple (k)} = \frac{\text{Change in income}(\Delta Y)}{\text{Change in Investment}(\Delta I)} = \frac{500}{125} = 4$$

We know, Multiplier (k) = $\frac{1}{1-MPC}$

$$4 = \frac{1}{1-MPC}$$

$$1-MPC = \frac{1}{4}$$

MPC = 1 - 0.25 = 0.75

Ans. Marginal Propensity to Consume (MPC) = 0.75

Example 13. In an economy, investment is increased by ₹ 300 crore. If

marginal propensity to consume is $2/3$, calculate increase in national income. {CBSE, Delhi 2016 (I)}

Solution:

$$\text{Multiplier (k)} = \frac{1}{1 - MPC} = \frac{1}{1 - 2/3} = \frac{1}{0.33} = 3$$

$$\text{We also know: } k = \frac{\text{Change in Income}(\Delta Y)}{\text{Change in Investment}(\Delta I)}$$

$$3 = \frac{\text{Change in Income}(\Delta Y)}{300}$$

Hence, Increase in National Income (ΔC) = ₹ 900 crores

Ans. Increase in National Income = ₹ 900 crores

Example 14. If marginal propensity to consume is 0.9, what is the value of multiplier? How much investment is needed, if national income increase by ₹ 5,000 crores? {CBSE, Delhi 2008 (III)}

Solution:

$$\text{Multiplier (k)} = \frac{1}{1 - MPC} = \frac{1}{1 - 0.90} = \frac{1}{0.10} = 10$$

$$\text{We also know: } k = \frac{\text{Change in Income}(\Delta Y)}{\text{Change in Investment}(\Delta I)}$$

$$10 = \frac{5,000}{\text{Change in Investment}(\Delta I)}$$

Hence, Change in Investment (ΔI) = ₹ 500 crores

Ans. Multiplier (k) = 10; Increase in investment = ₹ 500 crores

Example 15. In an economy, the entire increase in income is spent on consumption. What will be the value of multiplier?

Solution:

When entire increase in income is spent on consumption, then: $\Delta C = \Delta Y$, i.e. $MPC = 1$

We know: Multiplier (k) = $\frac{1}{1 - MPC}$

When $MPC = 1$, then: $k = \frac{1}{1 - 1} = \frac{1}{0} = \infty$

(as any number divided by 0 is ∞)

Example 16. In an economy 75 percent of the increase in income is spent on consumption. Investment is increased by ₹ 1,000 crore. Calculate: (a) total increase in income; (b) total increase in consumption expenditure.

{CBSE, Delhi 2010}

Solution:

Given : $MPC = 0.75$

(as 75% of increase in income is spent on consumption)

Multiplier (k) $\frac{1}{1 - MPC} = \frac{1}{1 - 0.75} = \frac{1}{0.25} = 4$

When also know: $k = \frac{\text{Change in Income } (\Delta Y)}{\text{Change in Investment } (\Delta I)}$

$4 = \frac{\text{Change in Income } (\Delta)}{1,000}$

So, Change in Income (ΔY) = ₹ 3,000 crores

Ans. Total increase in income = ₹ 4,000 crores; Total increase in

Consumption Expenditure = ₹ 3,000 crores

Q.1. Distinguish between inflationary gap and deflationary gap. Show deflationary gap on a diagram. Can this gap exist at equilibrium level of income? Explain.

{CBSE, Delhi, 2004}

Ans.

Basis	Inflationary Gap	Deflationary Gap
Meaning	It refers to the gap by which actual AD exceeds AS at level of full employment.	It refers to the gap by which actual AD falls short of AS at level of full employment.
Impact on Output and Employment	It does not affect the output and employment level as economy is already operating at full employment level.	It leads to fall in output and employment due to shortage of aggregate demand.
Impact on Price	It leads to inflation, i.e.	It leads to deflation,

	it result in rise in general price level.	i.e. it results in fall in general price level.
Diagram	In Fig. 9.1., EF is termed as the inflationary gap.	In Fig. 9.2, EG is termed as the deflationary gap.

For diagrammatic explanation of deflationary gap, refer Fig. 9.2.

Yes, deflationary gap can exist at equilibrium level of income. According to Keynes, equilibrium level of income indicates mere equality between AD and AS, regardless of whether the equilibrium is at full employment or underemployment of resources.

- **If the resources are employed to their full limit, i.e. equilibrium is at full employment level, the deflationary gap cannot exist at equilibrium level of income.**
- **However, if resources are not fully employed, i.e. it is an underemployment equilibrium, then deflationary gap can exist at equilibrium level of income.**

Q. 2. State the treatment of following measures by central bank during excess demand: (i) Bank rate (ii) Margin requirements; (iii) Open market operation.

Ans. (i) Bank rate will be increased.

(ii) Margin requirements will also be increased.

(iii) Central bank will start selling the securities in the open

market.

Q. 3. Name the monetary measure indicated in the following statements. Also indicate, whether the following measures will be adopted during excess demand or deficient demand.

(i) RBI starts selling Government securities to the public.

(ii) Instead of 80%, now 90% of the security amount will be given as loan.

(iii) It resulted in increase in interest rate charged by commercial bank from the borrowers.

(iv) RBI advised SBI to stop advertising for home loans in order to discourage lending.

(v) Central bank reduces the amount of time and demand deposits required to be kept as reserves

(vi) RBI instructed not to advance loans to people with income above ? 5 lakhs per annum.

Ans. (i) Open Market Operation

(ii) Margin Requirements

(iii) Bank Rate

(iv) Moral Suasion

(v) Legal reserve requirements

(vi) Selective Credit Controls

Measures adopted during Excess Demand will be: (i), (iii), (iv) and (vi).

Measures adopted during Deficient Demand will be: (ii) and (v).

Q. 4. 'An excess of aggregate demand over aggregate supply always implies a situation of inflationary gap.' Defend or refute. *Ans. The given statement is refuted. Excess of aggregate demand (AD) over aggregate supply (AS) will lead to inflationary gap only when AD is more than AS corresponding to full employment level of output. If AD is more than AS before that level, then it will not lead to inflationary gap.*

Q.5. Distinguish between full employment equilibrium and underemployment equilibrium.

Ans.

Basis	Inflationary Gap	Deflationary Gap
Meaning	It refers to a situation when $AD=AS$ and all those who are willing and able to work at the existing wage rate, get work without any undue difficulty.	If refers to a situation when $AD=AS$, but all those who are willing and able to work at the existing wage rate, do not get work.
Impact on Real Output	At this equilibrium level, real output reaches its maximum point.	At this equilibrium level, output does not reach its maximum.

Inflationary Gap	Any excess of A Dover Corresponding to full employment equilibrium leads to inflationary gap.	Any excess of AD over AS beyond underemployment equilibrium does not lead to inflationary gap.
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Q. 6. Discuss the situation when aggregate demand is more than aggregate supply at full employment income level. {CBSE, Delhi2018}

Ans. When Aggregate Demand is greater than Aggregate Supply at full employment, such a situation is known as Excess Demand or Inflationary Gap. It is called inflationary because this leads to a rise in general price level of the economy.

TRUE AND FALSE

Are the following statements true or false? Give reasons.

- To check inflation, the central bank should reduce the cash reserve ratio.
False. The central bank should increase the cash reserve ratio in order to check inflation.
- To correct the deflationary gap, money supply should be decreased.
False. Money supply should be increased to raise the level of aggregate demand.
- Equilibrium beyond the full employment level does not lead to rise in output level.
True. The level of output will not rise as economy is already at full employment level and there is no idle capacity in the economy.
- A reduction in government spending leads to fall in the income and purchasing power of the people.

True. Reduction in government spending will reduce the level of aggregate demand, which will lead to fall in the income and purchasing power of the people. (The extent of fall in the income and purchasing power depends on the size of multiplier)

5. Sale of government securities by the central bank in the open market is an appropriate policy to check depression in the economy.

False. To check depression, the central bank should purchase government securities from the open market.

6. Deficiency in demand has no effect on the country's output and prices.

False. Deficiency in demand leads to fall in country's output and prices.

7. An increase in the bank rate makes borrowing costlier for the general public.

True. Increase in bank rate forces the commercial banks to increase their lending rates, which makes borrowings costlier for the general public.

The deflationary gap can be corrected by raising the level of aggregate demand.

True. Because deflationary gap occurs when aggregate demand falls short of aggregate supply.

9. Excess demand generates greater employment opportunities in the economy.

False. Excess demand is a situation when there is no possibility of greater employment opportunities economy is already at full employment level.

10. Increase in margin requirements helps to control the situation of deficient demand.

False. Margin requirements needs to be reduced to enhance the credit creating power of commercial ba and to correct the deficient demand.*

11. Inflationary gap exists when aggregate demand is greater than aggregate supply.

{CBSE, Delhi Comptt. 2016}

False. Inflationary gap exists when Aggregate Demand is greater than Aggregate Supply at full employ mi

12. Deflationary gap exists when aggregate demand is greater than aggregate supply at full employment level. {CBSE, Sample Paper 2018}

False. Inflationary Gap exists when actual Aggregate Demand is more than Aggregate Supply correspond to full employment level of output in the economy.

Note: As per CBSE guidelines, no marks will be given if reason to the answer is not explained.

REVISION EXERCISE

Multiple Choice Questions (MCQs)

- _____ is exercised through discussions, letters and speeches to banks.
(a) Moral suasion (b) Selective Credit Controls
(c) Margin Requirements (d) Open Market Operations
- Which of the following is not the reason for excess demand?
(a) Fall in the propensity to consume (b) Reduction in taxes
(c) Increase in investments (d) Deficit Financing
- Increase in cash reserve ratio will lead to:
(a) Fall in Aggregate Demand (b) Rise in Aggregate Demand
(c) No change in Aggregate Demand (d) None of these
- The gap by which actual aggregate demand exceeds the aggregate demand required to establish employment equilibrium is known as
(a) Deficient Demand (b) Deflationary gap
(c) Inflationary Gap (d) Excess Demand
- "Change in Government Spending" is a part of:
(a) Monetary Policy (b) Fiscal Policy
(c) Either (a) or (b) (d) Neither (a) nor (b)
- _____ refers to the situation when aggregate supply falls short of aggregate demand correspond to full employment level of output in the economy,
_____ (a) Deficient Demand ■ (b) Excess Demand
(c) Inflationary Gap (d) Deflationary gap

7. Excess demand leads to:

- (a) Increase in the level of employment
- (b) Decrease in the level of employment
- (c) No change in the level of employment
- (d) None of these

8. Deficient Demand indicates:

- (a) Under employment equilibrium
- (b) Over Full employment equilibrium
- (c) Full employment equilibrium
- (d) None of these

9. Monetary Policy is the policy of_____ to control money supply and credit creation in the economy.

- (a) Central Government
- (b) Central Bank
- (c) Both (a) and (b)
- (d) None of these

10. During excess demand, central bank_____ the margin.

- (a) Decreases
- (b) Increases
- (c) Removes
- (d) Does not change

11. In the following diagram, the gap EF is termed as;

- (a) Inflationary Gap
- (b) Deflationary Gap
- (c) Either (a) or (b)
- (d) Neither (a) nor (b)

12. If an economy is to control recession like most of the Euro-Zone nations, which of the following can be appropriate:

{CBSE, Sample Paper 2016}

- (a) Reducing Repo Rate
- (b) Reducing CRR
- (c) Both (a) and (b)
- (d) None of (a) and (b)

13. Aggregate demand can be increased by : (choose the correct alternative)

{CBSE, Delhi 2017}

- (a) Increasing bank me
- (b) selling government securities by Reserve Bank of India
- (c) increasing cash reserve ratio
- (d) none of the above

Ans. 1. (a); 2. (a); 3. (a); 4. (c); 5. (b); 6. (b); 7. (c); 8. (a); 9. (b); 10. (b); 11. (a); 12. (c); 13. (d)

Very Short Answer Type Questions (1 Mark each)

Q.1. Name the situation under which planned aggregate expenditure exceeds the equilibrium level of expenditure.

Ans. Excess demand

Q.2. What is meant by excess demand in Macroeconomics?

{CBSE, Delhi 2009, All India 2014 (III)}

Ans. Excess demand refers to the situation when aggregate demand is more than the aggregate supply corresponding to the full employment level in the economy,

Q.3. Define inflationary gap. *{CBSE, Delhi 2008, All India 2014 (I)}*

Ans. Inflationary gap refers to the gap by which actual aggregate demand exceeds the aggregate demand required to establish full employment equilibrium.

Q.4 What does inflationary gap measure?

Ans. The inflationary gap measures the quantum of excess demand.

Q.5. Name the situation under which aggregate demand is insufficient to eliminate involuntary unemployment.

Ans. Deficient demand.

Q.6. Give meaning of 'deficient demand' in macroeconomics.

{CBSE, Foreign 2014 (I)}

Ans. Deficient demand refers to the situation when aggregate demand is less than aggregate supply corresponding to the full employment level in the economy.

Q. 7. Define deflationary gap.

{CBSE, Delhi 2008, All India 2014 (II)}

OR

Give the meaning of deflationary gap. *{CBSE, Delhi 2010}*

Ans. Deflationary gap refers to the gap by which actual aggregate demand falls short of the aggregate demand required to establish full employment equilibrium.

Q. 8. What is the impact of excess demand and deficient demand on the price level?

Ans. Excess demand raises the general price level (inflation), whereas, deficient demand reduces it (deflation)

Q.9. State the impact of excess demand on production and employment.

Ans. Production and employment remain unchanged during excess demand as the economy is already operating at the full employment level.

Q. 10. What is the impact of deficient demand on production and employment?

Ans. Production and employment will decrease due to shortage of aggregate demand.

Q.11. When does the situation of deficient demand arise in an economy?

Ans. When actual aggregate demand falls short of the aggregate demand required for full employment equilibrium, it gives rise to deficient demand.

Q. 12. State two measures by which a central bank can attempt to reduce the inflationary gap.

Ans. (i) Increase in bank rate, (ii) Sale of government securities.

Q. 13. How does the instrument of open market operations help during deficient demand?

Ans. During deficient demand, the central bank starts purchasing securities from the open market. It increases the money supply and enhances the purchasing power capacity of the economy.

Q.14. What happens when the credit availability is restricted and credit made costlier?

Ans. Limited and costly credit leads to contraction of credit and it has a deflationary impact on the economy

Q. 15. What will be the impact of increase in cash reserve ratio on the aggregate demand?

Ans. Aggregate demand will fall.

Q. 16. What is the impact of decrease in margin requirements? *Ans. Decrease in margin requirements encourages borrowings and raises the aggregate demand.*

Short Answer Type Questions (3-4 Marks each)

1. Does the situation of excess demand arise? How do you measure it? Show it with the help of a diagram.

2. What is the impact of excess demand on output, employment and prices?

Explain the meaning of inflationary gap with the help of a diagram.

{CBSE, Delhi 2005}

OR

Explain the meaning and implications of inflationary gap.

4. Explain the meaning of deflationary gap with the help of a diagram.

{CBSE, Delhi 2005.

5. Explain the situation of deficient demand in an economy with the help of a diagram.

{CBSE, Delhi 2005

6. Explain the role of bank rate in dealing with the problem of deficient demand.

{CBSE, Delhi Comptt. 2015;

7. How can a central bank control excess demand in an economy by making changes in the legal reserve requirements?

8. Explain any two measures to remedy the problem of excess demand in an economy.

9. "Decrease in the money supply helps in controlling the situation of excess demand in an economy". Comment.

10. Would you advocate expansion or contraction of money supply during excess

demand?

11. How can increase in the government expenditure solve the problem of deficient demand?

OR

Explain how can government spending be helpful in removing deficient demand.

{CBSE, Foreign 2016}

12. Discuss the role of government in correcting excess demand with the help of a diagram.

13. Explain the role of margin requirements in dealing with the problem of excess demand.

{CBSE, Delhi Comptt. 2018}

14. What role does government expenditure play to control deficient demand in a three-sector economy? Use diagram.

15. Explain the role of "open market operations" in controlling the inflationary gap.

{CBSE, Sample Paper 2014}

16. How does increase in taxes help to control the situation of excess demand?

OR

Explain the role of taxation in reducing excess demand.

{CBSE, Delhi 2016}

17. What is meant by Repo Rate? How does the Central Bank use this measure to control inflationary conditions in an economy?

{CBSE, Sample Paper 2016}

18. Explain how controlling money supply is helpful in reducing excess demand.

{CBSE, All India 2016}

19. What is meant by Margin Requirement? How does the Central Bank use this measure to control deflationary conditions in an economy?

{CBSE, Sample Paper 2016}

20. What is meant by inflationary gap? State three measures to reduce this gap.

Long Answer Type Questions (6 Marks each)

1. Explain the concept of inflationary gap with the help of a diagram. What is its impact on output, employment and price level in the economy?

2. Explain the problem of 'excess demand' in an economy with the help of a diagram. Explain the role of bank rate in correcting it.

{CBSE, Delhi2007}

3. Explain the concept of 'excess demand' in macroeconomics. Also explain the role of 'open market operation' in correcting it.

{CBSE, Delhi2012}

OR

What is 'excess demand' in macroeconomics? Show the same in a diagram. Explain the role of 'open market operations' in reducing it.

{CBSE, All India Comptt. 2013}

4. Discuss, in brief, the meanings of deficient demand and deflationary gap with the help of a diagram. Also, discuss the effect of deficient demand on output, employment and price level.

5. Explain the role of the following in correcting 'deficient demand' in an economy: (i) Open market operations, (ii) Bank rate.

{CBSE, Delhi 2011}

6. Explain the concept of excess demand and inflationary gap with the help of diagram. How can it be corrected by the government?

7. How does money supply help in controlling the situation of deficient demand?

8. Explain the role of the following in correcting 'excess demand' in an economy: (i) Bank rate, (ii) Open market operations.

{CBSE, Delhi2011}

9. Explain the concept of 'deflationary gap'. Also explain the role of 'margin requirements' in reducing it.

10. Explain the concept of 'deficient demand' in macroeconomics. Also explain the role of Bank Rate in correcting its {CBSE, Delhi 2012}

11. Explain the concept of 'inflationary app'. Also explain the role of 'legal reserves' in reducing it.

{CBSE, All India 2012}

12. Explain the meaning of under-employment equilibrium. Explain two measures by

which full employment equilibrium can be reached. {CBSE, All India 2013}

13. Distinguish between inflationary gap and deflationary gap. State two measures by which these can be corrected. {CBSE, All India 2013 (II)}

14. Explain the meaning of inflationary gap and deflationary gap with the help of diagram.

15. Explain the meaning of inflationary gap and deflationary gap. Explain any one measure by which these gaps can be reduced. {CBSE, Delhi Compt.. 2013}

16. Explain the concept of Inflationary Gap. Explain the role of Repo Rate in reducing this gap.

17. What is 'excess demand'? Explain the role of 'Reverse Repo Rate' in removing it. {CBSE, All India 2015}

18. What is 'inflationary gap'? Explain the role of Cash Reserve Ratio in removing this gap. {CBSE, Foreign 2015}

19. How does change in taxes help to control the situation of excess and deficient demand?

20. Explain the situation of deficient demand in an economy. Also explain the role of Repo Rate in correcting this. {CBSE, All India Comptt. 2016}

Government Budget and The Economy

Meaning of govt. budget

Govt. budget is an annual statement, showing item wise estimates of receipts and expenditure during a Fiscal year.

Objectives of govt. budget

Govt. prepares the budget for fulfilling certain objectives. These objectives are the direct outcome of government's economic, social and political policies. The various objectives of government budget are:

- 1) **Reallocation of Resources:** through the budgetary policy, govt. aims to reallocate resources in accordance with the economic (profit maximization) and social (public welfare) priorities of the country. For example, govt. discourages the production of harmful consumption goods (like liquor, cigarettes etc.) through heavy taxes and encourages the use of 'khadi products' by providing subsidies.
- 2) **Redistribution activities:** economic inequalities are an inherent part of every economic system. Govt. aims to reduce such inequalities of

income and wealth, through its budgetary policy. Fiscal instrument like taxation, subsidies and expenditure on social security, public works , etc. are used by the govt. to achieve this objective.

- 3) **Management of Public Enterprises:** there are large nos. of public sector industries (especially natural monopolies), which are established and managed for social welfare of the public. Budget is prepare with the objective of making various provisions for managing such enterprises and providing them financial help.
- 4) **Stabilizing economic activities:** Govt. budget is used to prevent business fluctuation of inflation or deflation and to maintain economic stability. The govt. aims to control the difference phases of business fluctuations through its budgetary policy. Policies of surplus budget during inflation and deficit budget during deflation are adopted to achieve stability in the economy.
- 5) **Economic growth:** economic growth has been the main objective of every economy at all times. The growth rate of a country depends on rate of saving and investment. For this purpose, budgetary policy aims to mobilize sufficient resources for investment in the public sector. Therefore, the govt. makes various provision in the budget to raise overall rate of savings and investments in the economy.

Components of Budget

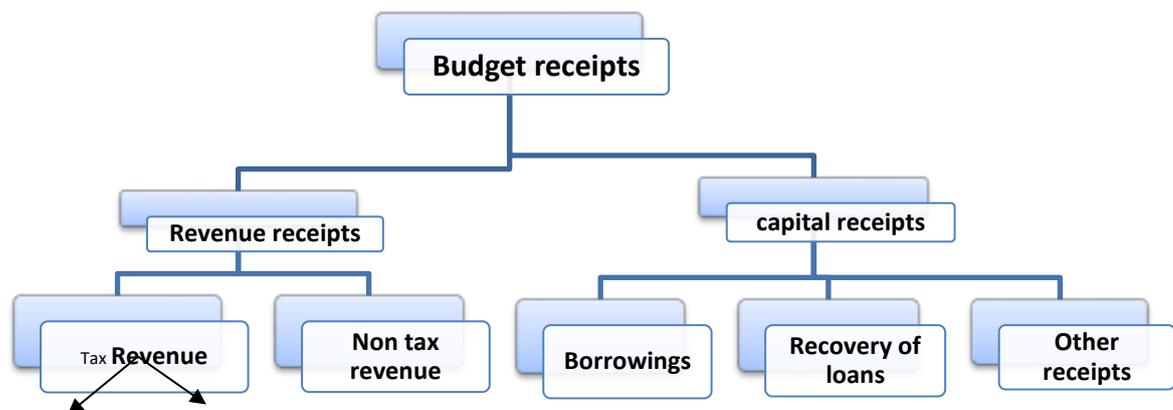
- 1) **Revenue Budget:** It deals with the revenue aspect of the govt. budget. It explains how revenue is generated or collected by the govt. and how it is allocated among various expenditure hands. Revenue budget has two part:
 - i. revenue receipts
 - ii. revenue expenditure
- 2) **Capital Budget:** It deals with the capital aspect of the govt. budget and it consists of:
 - i. Capital receipts
 - ii. Capital expenditure

The components of budget can also be categories according to receipts and expenditure. On the basis, two broad components are:

- i. Budget receipts
- ii. Budget expenditures

Budget Receipts

Budget receipts refer to the estimated money receipts of the government from all sources during a given fiscal year. Budget receipts may be further classified as (i) revenue receipts, (ii) capital receipts.



REVENUE RECEIPTS

Revenue receipts refer to those receipts which neither create any liability nor cause any reduction in the assets of the government.

Two sources of revenue receipts: They are (a) Tax revenue (b) Non-tax revenue

Tax Revenue: It refers to sum of total of receipts from taxes and other duties imposed by the government. Tax is a compulsory made by people and companies to the government without reference to any direct benefit in return.

Tax revenue can be further classified as:

- i. Direct taxes
- ii. Indirect taxes

Direct taxes

Direct taxes refer to taxes that are imposed on property and income of individuals and companies and are paid direct by them to the government. Examples of direct taxes are: Income taxes, Interest taxes, Wealth tax, death duty. Capital gains tax etc.

Indirect taxes

Indirect taxes refer to those taxes which affect the income of individual and companies through their consumption expenditure. Examples of indirect

taxes: Sales tax, Service tax, VAT, Entertainment tax, Excise duty, custom duty, etc.

Comparison between direct taxes and indirect taxes

Basis	Direct taxes	Indirect taxes
Impact	Direct taxes are levied on individual and companies.	Indirect taxes are levied on goods and services.
Shift of burden	The burden of a direct tax cannot be satisfied be shifted, i.e. impact and incidence is on the same person.	The burden of an indirect tax can be shifted, i.e. impact and incidence is on different persons.
Nature	They are generally progressive in nature.	They are generally proportional in nature.

Non-tax revenue

Non-tax revenue refers to receipts of the government from all sources other than those of tax receipts. The main sources of non-tax revenue are:

- i. Interest
- ii. Profits and dividends
- iii. Fees
- iv. License fee
- v. Fines and penalties
- vi. Escheats: (it refers to claim of the government on the property of a person who dies without leaving behind any legal heir or a will)
- vii. Gifts and grains
- viii. Forfeitures: (these are in the form of penalties which are imposed by the courts for non-compliance of orders or non-fulfillment of contracts etc.)
- ix. Special assessment: (It refers to the payment made by owners of those properties whose value has appreciated due to development activities of the government. For example, if value of a property near a Metro station has increased, then a part of development expenditure is recovered from owners of such property in the form of special assessment).

CAPITAL RECEIPTS

It refers to those receipts which either create a liability or cause a reduction in its assets.

Sources of capital Receipts

Capital receipts are broadly classified into three groups:

- (i) Borrowings : Government borrow funds from : (a) Open market (public)
(b) Reserve bank of India,(c) Foreign government ,(iv) International institutions (like world bank, IMF), Borrowings are capital receipts as they create a liability for the government.
- (ii) Recovery of loans : Government grants various loans to state government or union territories. Recovery of such loans is a capital receipts as it reduces the assets of the government.
- (ii) Other Receipts: These include;
 - (a) Disinvestment: It refers to the act of selling a part or the whole of shares of selected public sector undertakings held by the government. They are termed as capital receipts as they reduce the assets of the government. Government holds ownership in various PSU's in the form of equity shares. When the government sells a part or whole of its shares, it leads to transfer of ownership of OSU's to the private enterprises.
 - (b) Small savings: It refers to funds raised from the public in the form of Post Office deposits, National Saving Certificates, Kisan Vikas Patras etc. They are treated as capital receipts as they lead to an increase in liability.

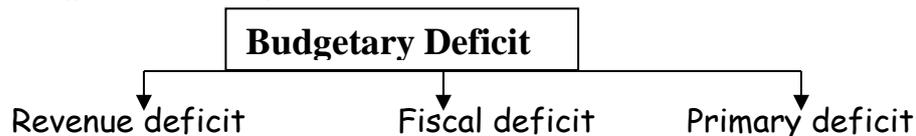
BUDGET EXPENDITURE

It refers to the estimated expenditure of the government during a given fiscal year. The budget expenditure can be broadly categorized as:

- (i) Revenue expenditure : it refers to the expenditure which neither creates any asset nor causes reduction in any liability of the government. For e.g.,payment of salaries, pensions, interest, expenditure on administrative services, defence services, health services, grants to state etc.
- (ii) Capital Expenditure : It refers to the expenditure which neither creates an assets or causes a reduction in the liabilities of the government.For e.g., loans to states and union territories, expenditure on building roads, flyovers, factories, purchase of machinery etc.

MEASURES OF GOVERNMENT DEFICIT

It is defined as the excess of total estimated expenditure over total estimated revenue.



REVENUE DEFICIT

Revenue deficit refers to excess of revenue expenditure over revenue receipts during the given fiscal year.

Revenue Deficit = Revenue Expenditure - Revenue Receipts

Revenue deficit signifies that revenue receipts fall short of the revenue expenditures. The government's own revenue is insufficient to meet the expenditures on normal functioning of government departments and provisions for various services.

Implication of revenue deficit:

- (i) Revenue deficit indicates the inability of the government to meet its regular and recurring expenditure in the proposed budget.
- (ii) It implies that government is dissaving, i.e. government is using up savings of other sector of the economy to finance its consumption expenditure.
- (iii) It also implies that the government has to make up this deficit from capital receipts, i.e., through borrowing or disinvestments. It means, revenue deficit either leads to an increase in liabilities in the form of borrowings or reduces the assets through disinvestment.
- (iv) A high revenue deficit gives a warning signal to the government to either curtail its expenditure or increase its revenue.

Measure to reduce Revenue Deficit

- (i) **Reduce expenditure:** Government should take serious steps to reduce its expenditure and avoid unproductive or unnecessary expenditure.
- (ii) **Increase revenue:** Government should increase its receipts from various sources of tax and non-tax revenue.

Fiscal deficit

Fiscal deficit refers to the excess of total expenditure over total receipts (excluding borrowing) during the fiscal year.

Fiscal Deficit = total expenditure - total receipts excluding borrowings

Implications of fiscal deficit

- (i) **Debt. Trap:** Fiscal deficit indicates the total borrowing requirements of the government. Borrowing not only repayment of principal amount, but also require payment of interest. Interest payments increase the revenue expenditure, which leads to revenue deficit, wherein government takes more loans to repay the earlier loans. As a result, country is caught in a debt trap.
- (ii) **Inflation:** Government mainly borrows from Reserve Bank on India (RBI) to meet its fiscal deficit. RBI prints new currency to meet deficit requirements. It increases the money supply in the economy and creates inflationary pressure.
- (iii) **Foreign dependence:** government also borrows from rest of the world, which raises its dependence on the countries.
- (iv) **Hampers the future growth:** borrowings increases the financial burden for future generations. It adversely affect the future growth and development prospects of the country.

Comparison between Fiscal Deficit and Revenue Deficit

Basis	Fiscal Deficit	Revenue Deficit
Meaning	It shows the excess of total expenditure over total receipts excluding borrowings.	It shows the excess of revenue expenditure over the revenue receipts.
Indicator	It measures the total borrowing requirements of the government.	It indicates inability of the government to meet its regular and recurring expenditure.

Sources of Financing Fiscal Deficit

Government has to look out for different options to finance the fiscal deficit. The main two sources are:

- (i) Borrowings
- (ii) Deficit Financing

Primary deficit

Primary deficit refers to difference between fiscal deficit of the current year and interest payments on the previous borrowings.

Primary Deficit= Fiscal Deficit - Interest Payments

The total borrowings requirements of the governments borrowings are going to meet expenses other than the interest payments. The difference between

fiscal deficit and primary deficit shows the amount of interest payments on the borrowings made in past. So a low or zero primary deficit indicates that interest commitments (on earlier loans) have forced the governments to borrow.

Comparison between primary deficit and fiscal deficit

Basis	Primary Deficit	Fiscal Deficit
Meaning	It shows the different between fiscal deficit and interest payments.	It shows the excess of total expenditure over total receipts excluding borrowing.
Indicator	It shows the total borrowings requirements of the government excluding interest.	It indicates the total borrowing requirements of the government, including interest.
Formula	Primary deficit = fiscal deficit- interest payment.	Fiscal deficit = total expenditure - total receipts excluding borrowing.

Govt. Budget - 8marks

1. Define government budget.(1)
2. Give meaning of capital expenditure and revenue expenditure in a government budget and an example of each. (3)
3. What is fiscal deficit? What are its implications ?(4)
4. State the basis of classifying government receipts into revenue receipts and capital receipts .Give an example of each.(3)
5. In a government budget, primary deficit is rs.10,000 crores and interest payment is Rs.8000 crores. How much is the fiscal deficit?(1)
6. Giving reasons categorise the following into revenue expenditure and capital expenditure(4)
 - i-Subsidies

ii-Grants given to State Governments

iii- Repayment of loans.

iv- Construction of school buildings.

7. Give the meaning of revenue receipts and capital receipts in a government budget. Also give an example of each.(3)

8. Distinguish between direct tax and indirect tax. Give an example of each.(4)

9. What is a budget deficit? What is primary deficit and what does it indicate?(4)

10. Define revenue and capital receipts in a government budget. Give one example of each.(3)

11. Why is repayment of loans treated as capital expenditure?(1)

12. Define a government budget. State any four of its main objectives.(3)

13. Explain the meaning and implication of fiscal deficit.(4)

14. Why is recovery of loans treated as a capital receipt?(1)

15. Define tax. Give two example each of direct and indirect taxes.(3)

16. Why are borrowings treated as capital receipts?(1)

17. What is the basis of classifying government expenditure into revenue expenditure and capital expenditure? Give an example of each.(3)

18. Why are receipts from taxes categorized as revenue receipts?(1)

19. Distinguish between revenue expenditure and capital expenditure in a government budget. Give one examples of each.(3)

20. Explain the concept of primary deficit in a government budget. What does this deficit indicate?(4)

21. Why is interest received categorized as revenue receipt?(1)

22. What is meant by fiscal deficit?(1)

23. What is meant by revenue deficit? What are the implication of this deficit?(3)

24. Explain briefly any two objectives of a government budget.(4)

25. Give two examples of indirect tax.(1)

26. Giving reasons, categorise the following into revenue receipt and capital receipts(3)

a- recovery of loans.

b- corporation of tax

c- disinvestments

27. Distinguish between Development and Non-Development expenditure. Give one example of each.(3)

BALANCE OF PAYMENT - 7 marks

1. What is fixed exchange rate system.(1)

2. When will balance of trade show a surplus?
 3. When exchange rate of foreign currency falls, its demand rises, Explain, how.(3)
 4. Distinguish between balance of trade and balance on current account.(3)
 5. Define foreign exchange rate. Why does the demand for foreign exchange rise when its price falls.(4)
 6. Explain the relation between fall in price of foreign exchange and its supply by giving two examples.(4)
 7. List the items included in the balance of trade account.(1)
 8. Name two sources of demand for foreign exchange.(1)
 9. Distinguish between the current account and the capital account of the balance of payments. State two components of each.(4)
 10. What does a deficit in balance of trade account indicate?(1)
 11. List four items each of current account and capital account of the balance of payments account.(4)OR
 12. Mention four sources each of demand and supply of foreign exchange.(4)
 13. What is the difference between the value of exports of good and value of imports of good called?(1)
 14. What is meant by balance of payments account?(1)
 15. A country's balance of trade is Rs.(-) 50 crores. Value of imports of goods is Rs.200 crores. How much is the value of export of goods?(1)
 16. Define balance of payments account. List any six items of this account.(4)
 17. A country's balance of trade is Rs. 500 crores. Value of exports of goods is Rs.650 crores. How much is the value of import of goods?(1)
 18. When is there a deficit in the balance of trade?(1)
 19. Distinguish between current account and capital account of balance of payments account. Mention any two transactions of capital account.(4)
- OR
- How is the foreign exchange market rate determined? Explain with the help of a diagram.(4)
20. Define flexible exchange rate. Explain two merits of flexible exchange rate.(3)
 21. Briefly explain any three sources of supply of foreign exchange.
- OR
- Distinguish between current account and capital account of balance of payments. Give examples.(3)

MONEY AND BANKING

Meaning of barter system: It means exchange of goods with another goods.

Features of barter system:

- 1) It is very simple system for the exchange of goods.
- 2) There is n possibility of over or under production because need based goods are produced for each other.
- 3) There is no problem of concentration of economic power into the hands of few rich persons.

Drawbacks or difficulties of barter system

- 1) **Double co-incidence of wants:** Barter is the only possible if there is double co-incidence of wants. It means that two persons who want to exchange two goods between each other, must be in need of goods of each other. However, it becomes difficult to find such persons every time.
- 2) **Lack of common measure of value:** In the barter system, there is no common measure(unit) of value of goods and services. All commodities are not of equal value and there is absence of a common denomination, which exchange ratios can be expressed. For example, if A has wheat and B has rice, then it is difficult of decide, how much wheat is needed to exchange with one kilogram of rice. In the absence of common measure, the exchange ratio is fixed arbitrarily, in which one of the party generally suffers.
- 3) **Problem of storing wealth:** Under a barter system is a absence of a proper and convenient means of storing wealth or value because of perishable nature of goods or high storage cost of goods.
- 4) **Lack of standard of deferred payment:** Barter system lacks a standard of deferred payments. Credit transactions are not possible under this system because of the following reasons.
 - a) The borrower may not be able to arrange goods of exactly of exactly same quality at the time of repayment.
 - b) The commodities, to be repaid, may loss or gain its value at the time of repayment.
- 5) **Lack of divisibility:** In the absence of common medium of exchange, a problem arises when a big individual commodity is to be exchange for a smaller commodity.

Meaning of money: Money is anything which is generally accepted as a medium of exchange, measure of value, story of value and means for, standars of deferred payment.

Definition of Money

1. Legal Definition of Money

2. Functional Definition of Money
3. Definition of the basis of Liquidity
4. Definition on the basis of Scope

Legal definition of money

Money is what the law says is money. So anything which the government declares as money is money. On the basis of legal recognition money is of two kinds:

- 1) **Legal Tender Money:** Money which can be legally used to make payment of debts or other obligations is termed as legal tender money.

Legal tender money is of two kinds:

- 1) **Limited Legal Tender:** In India, coins are limited legal tender.
- 2) **Unlimited Legal Tender:** In India, paper notes are unlimited legal tender.

2) **Non- Legal tender Money or optional money:** It refers to that form of money, which is generally accepted, but legally, one is not bound to accept it. For example cheques, bank drafts, bills of exchange, etc. do not have legal backing and their acceptance is totally optional.

Functional definition of Money

Money refers to anything that performs the four basic functions of money:

- a) Medium of exchange
- b) Measure of value
- c) Standard of deferred payments
- d) Store of value

Definition on the basis of liquidity

- i. **Money or Liquids from Money:** Money has the quality of general acceptability which makes it the most liquid asset. By liquidity, we mean the speed and certainty with which an asset can be converted back into money. Coins, currency notes and bank money are the most liquid from money.
- ii. **Near Money:** It includes those financial assets, which are not as liquid as coins and currency notes, but can be easily converted into money for paying debts. For example, National saving deposits, fixed deposited receipts, bonds etc. they are as good as money, but are non-legal tender money.

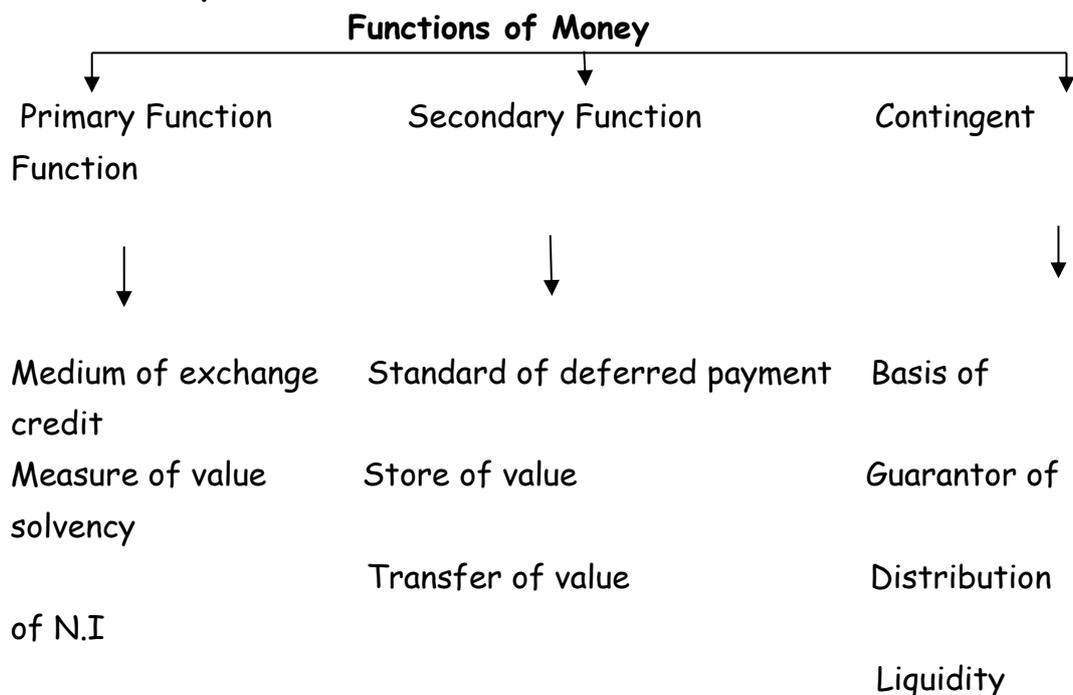
Definition on the basis of Scope

- i. **Narrow Definition of Money:** It includes only those things which perform the functions of money. It includes currency notes, coins and demand

deposits of banks as they perform the functions of money: a) Medium of exchange b) Measure of value c) Standard of deferred payments d) Store of value.

- ii. **Broad definition of Money:** In addition to narrow money, it also includes time deposits in banks and post offices. Time deposits are included as they have high degree of moneyness and can be converted into chequable deposits within a short span of time. Broad Definition of money= Money Assets + Near Money.

Functions of Money



Primary function: It includes those functions which are prime importance and common to all the countries during all the periods.

These are:

- i. **Medium of exchange:** Money as a medium of exchange or medium of payment is used for sale and purchase of goods and services. Anyone can get commodity in exchange of money. It means that we can get goods and services in exchange of money available with us. In this way, money removed the problem of double-coincidence of in this barter system and thus, reduced time and energy in the transaction. Money is also called as bearer of option or generalized, purchasing power. The money in this way of us freedom of choice.
- ii. **Measure of value:** Money measures value of good and services to facilities to sale and purchase of goods and services for eg. Rs. 30 per litre of milk. By reducing the value of all goods and services to a

single unit of account money has facilities and simplify the system of exchange.

Secondary function:

- i. **Standard of deferred payment:** Deferred payments means the payment made in near future. In other words it mean with the help of money people can buy and sell goods and services only on commitment and payment of installment in the future. Payment of pension, salaries, installments, loans etc. are the example of deferred payment.
- ii. **Store of value:** Money is the most liquid form of asset, so it is the best form to hold it. People always wants to keep currency note and coins with them. So they are in position in purchase things whenever they want.
- iii. **Transfer of value:** Money helps in transfer of value from one person to another. Sale or purchase of movable and immovable property can also be made with the help of money.

Contingent Function:

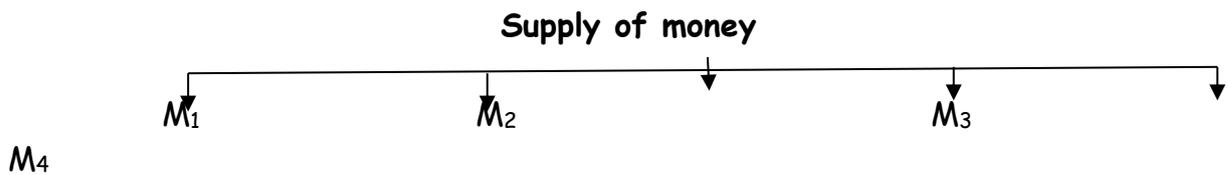
- i. **Liquidity:** Money is the most liquid assets which can be converted into other assts quickly. Money is also helpful to avail of the opportunity of investment into business by which an investor can get good amount of profit.
- ii. **Distribution of national income:** National Income of the country can be measured only in terms of money. We can assess distribution of National Income among the people through money.
- iii. **Basis of credit creation:** In a modern credit. For eg. Credit instrument like cheques, drafts, drafts, bills of exchange etc. can not be used without the existence of money. For instance, we may not be able to issue a cheque to somebody unless we have some money in our account in our account with banks.
- iv. **Guarantor of solvency:** Money is the guarantor of solvency of a person. If a person is able to pay his debt he will be called solvent. On the other hand if a person fails to honour its obligation, he will be called as insolvent and bankrupt.

In short: "Money is a matter of four functions a medium, a measure, a store and standard of deferred payments".

Money of Money Supply

Money Supply refers to total volume of money held by at a particular point of time in an economy.

Measurement of money supply in India or money stock measures: The RBI has been publishing data on four alternative measures of supply there are: M_1, M_2, M_3, M_4 .



Currency includes both paper currency and coins. Demand deposit included only net deposits with the bank. Other deposits includes demand deposits of financial institutions.

M_1 and M_2 measures narrow money whereas M_3 and M_4 measures broad money. M_1 is the most liquid and M_4 is the least liquid.

Distinguish between demand and term deposits.

Demand deposits	Term Deposits
<ol style="list-style-type: none"> 1. It refers to current account and is highly liquid. 2. It can be withdrawn anytime without notice. 3. They are checkable deposits. 4. Demand deposits do not carry any interest paid by the bank. 	<p>It refers to fixed deposits and is less liquid.</p> <p>It can be withdrawn only offer stipulated time period.</p> <p>There is no facility of term deposits.</p> <p>Term deposits carry interest depending upon the time.</p>

Who supplies money?

In the modern time, the source of supply of money are government, central bank of the country and commercial banks. In India, it is ministry of finance that issues 1 rupee note and all the coins. Money is mainly supplied by the RBI which is the central bank of the country. RBI issues currency on the basis of minimum reserve system. Under this system RBI has to maintain a minimum reserve, value of gold must be Rs. 115 crores.

Commercial Bank

Meaning: Commercial bank is an institution that operates for profit. It accepts deposits from general public and extent loans to household, firms and the government.

Credit Creation (Money Creation)

Credit creation is an important function of the commercial banks. By creating credits commercial banks contribute to money supply in the economy. Credit creation capacity of the commercial banks depends on their cash reserves and cash reserve ratio. Commercial banks create credit several times more than

their cash reserves. Credit creation occurs in the form of demand deposits. Ratio between demand deposits and cash reserves of the commercial banks is called credit multiplier. It is also estimated as the reciprocal of CRR(cash reserve ratio). Thus,

$$\text{Credit multiplier} = \frac{1}{\text{CRR}}$$

Assuming cash reserve ratio of 10 per cent, if commercial banks received demand deposits of Rs. 1,000, total credit creation in the economy will be:

$$= \frac{1}{\text{CRR}} \times 1,000$$

That is after keeping cash reserve ratio of 10 per cent, of Rs 1,000, the commercial bank can offer loan up to Rs. 10,000. Loans are reflected as demand deposits in the accounts of the borrowers. Accordingly, deposits of the banks are 10 times their cash reserves.

Meaning of Central Bank: Central bank is an apex body that controls, operates, regulates and directs the entire banking and monetary structure of the country. Central bank is the Reserve Bank of India (RBI). RBI was established in april 1, 1935 under the Reserve Bank of India Act passed in 1934.

Distinguish between central bank and commercial bank

Central Bank	Commercial Bank
1. Central bank is generally owned and governed by the government.	It operate both in the public and private sector.
2. It does not operate for profit.	Commercial bank operate mainly for profit.
3. There is only one central bank in a country.	There are many commercial bank in country.
4. Central bank has monopoly of issuing currency notes.	It cannot issue currency notes.
5. Central bank does not deal with public rather, it deals with commercial bank.	It deals with public.

Credit central measures adopted by central bank

OR

Principles techniques of monetary mgt. by Central Bank.

The principles methods or instrument of credit control employed by a central bank can broadly into the following 2 categories:

Quantitative or General Methods: Those instrument which control credit for such section of the society known to be quantitative credit control instrument. It controls over the society known to be quantitative credit in the economy.

Some of its important instruments are:

- i. **Bank Rate:** The bank rate is the minimum rate of which the central bank is prepared to give credit to the commercial bank. An increase in bank rate raises the cost of credit (rate of interest) and credit becomes expensive. Similarly, a decrease in bank rate lowers down the cost of credit becomes cheap.
- ii. **Open Market Operation:** It refer to sale and purchase of securities in the open market by the central bank. By selling the securities the central bank withdraws cash balances from within the economy, and by buying the securities the central bank contributes to cash balance in the economy.
Cash balances are high powered money on the basis of which commercial bank create credit. Thus, through open market operation if cash balances are increased, flow of credit will increase many times more and if cash balance reduces a flow of credit. Thus, through open market will increase many times more and if cash balance reduces a flow of credit will decrease many times more.
- iii. **Cash reserve ratio:** It refers to the minimum % of basis total deposits require to be kept with central bank. Commercial bank to keep with a certain % of their deposit in the form of cash reserve as a method of law.
When cash or credit is to be increased minimum reserve ratio is reduced, and when the cash flow or credit is to be reduced minimum cash reserve ratio is increased.
- iv. **Statutory Liquidity ratio:** Every bank is required to maintain a fixed(%age) of assets in the form of cash or liquid assets called SLR.
With a view to reducing the flow of credit in the market increases the liquidity ratio is reduced.

Qualitative Credit Control Instruments: Those instruments which control credit section of the society are known as credit control instruments. These methods are also known as selective control instruments. These are:

- i. **Margin Requirements:** The margin requirements of loan refers to the difference between the current value of the security offered for loans and the value of loans granted.
In case, the flow of credit is to restricted for certain specific business activities in the economy. The marginal requirements of loan is raised for those activity. The margin requirements is lowered in case the expansion of credit is desired.
- ii. **Direct Action:** The central bank max initiate direct action against the member bank. Direct action includes derecognition of a commercial bank as a member of country's banking system.
- iii. **Moral suasion:** central bank issue oral or written appeals (through discussion letters hint's etc) to member banks to restrict credit with a view to dampen inflation.

Function of central bank:

- i. **Issuing of notes OR Bank of Note issue:** these central bank has sole monopoly, to issue currency notes and coins issued by the central bank are the legal tender money. However, the monopoly of central bank to issue the currency notes maybe partial in certain countries.
For eg. : in India one rupee note issued by the country and all the other notes issued by the country and all the other notes issue to the central bank:
 - 1. It brings uniformity in note circulation.
 - 2. It enable the govt. to have supervision and control over the supply of money.
 - 3. It gives distinctive prestige to the note issue as a result people develop faith in the country.
- ii. **Banker agent and financial adviser to state:** The central bank is also a govt. bank:
 - 1. **As a govt. banker:** It perform the following function.
 - I. Keeps the banking account of the govt.
 - II. Makes temporary advances to the govt.
 - III. It carries govt. transaction involves in purchase and sales of foreign currencies.
 - 2. **As advisor:** central bank advices the govt. on all financial and monetary matter and also in formulation of general economic policies.
 - 3. **As the govt. agent:** it performs the following function:
 - I. Issue new loans on behalf of the govt.

- II. It collects taxes and another payments ion behalf of the govt.
 - III. It represent the govt. in the international financial institution, such as world bank, IMF etc.
- iii. **Bankers bank:** central bank is the bankers to the bank in the following ways:
 - I. **As the custodian of cash reserves of the commercial banks:** Commercial banks are required to keep a certain proportion of their deposits (CRR) with the central bank. In this way, central bank act as the custodian of cash reserve of the commercial bank.
 - II. **As lender of the last resort:** when commercial banks fail to meet their financial requirements from other sources, they can approach the central bank which gives loans and advances as lender of the last resort. Central bank assists these banks through discounting at approved securities and bills of exchange.
 - III. **Clearing house function:** As the custom of cash reserve of the commercial bank, the central bank act as the clearing house of these banks. Since all banks have their account with the central bank. The central bank can easily settled the claims of various banks against each other simply by book entries of transfer from one to other accounts. This method of settling accounts is called clearing house function of the central bank.
- iv. **Custodian of foreign exchange reserve:** central bank of a country manages and control the foreign exchange reserve and gold. It can sell gold to get foreign exchange and also can purchase foreign currencies at international prices.
- v. **Controller of credit:** credit control's the most important function of central bank. The credit can be control by qualitative and quantitative methods.

HOTS HIGHER ORDER THINKING SKILLS QUESTIONS

Q.1. In the following cases, indicate which currency is appreciating and which one is depreciating:

- (i) A change from $3\$ = 2\text{£}$ to $4\$ = 2\text{£}$.
- (ii) A change from $\text{₹} 95 = 2 \text{ US } \$$ to $? 150 = 3 \text{ US } \$$.
- (iii) A change from $\text{₹} 140 = 2 \text{ £}$ to $? 60 = 1 \text{ £}$.

(iv) A change from ₹ 52 = 1 Singapore \$ to ? 50 = 1 Singapore \$.

Ans. (i) £ is appreciating and \$ is depreciating,

(ii) \$ is appreciating and ₹ is depreciating,

(iii) ₹ is appreciating and £ is depreciating,

(iv) ₹ is appreciating and Singapore \$ is depreciating.

Q.2. State whether the following items constitute demand or supply of foreign exchange:

(i) Indian going to USA for medical treatment,

(ii) Donation of 500 Million \$ received from Microsoft,

(iii) Import of goods from China,

(iv) Indian students going to Australia for MBA.

(v) Foreign Tourists to India to visit Taj Mahal,

(vi) Purchase of land in England,

(vii) Bought 500 Pounds to sell for speculation.

Ans. Demand for Foreign Exchange: (i); (iii); (iv); (vi); and (vii). Supply of Foreign Exchange: (ii); (v).

Q. 3. Why does demand for foreign exchange arise for speculative activities?

Ans. Demand for foreign exchange arises when people want to speculate on the value of foreign currency. Speculators demand foreign currency in the present period with the aim of selling it in future at higher prices. For example, Manish purchases 1,000 US\$ at ₹ 70 per dollar with the expectation of selling the dollars at higher prices.

Q. 4. Why does the demand for foreign currency fall and supply rises when its price rises? Explain. {CBSE, Delhi 2017}

Ans. When price of foreign exchange rises, import becomes costlier, demand for imports will fall. As a result demand for foreign currency falls.

Ans. When price of foreign exchange rises domestic goods become cheaper for foreign buyers, because they can now buy more from one unit of foreign currency. As a result demand for exports rise, leading to increase in supply of foreign exchange.

Q. 5. Visits to foreign countries for sightseeing etc. by the people of India is on the rise. What will be its likely impact on foreign exchange rate and how?

{CBSE, Delhi 2014 (II)}

Ans. Visits to foreign countries will raise the demand for foreign exchange. Supply of foreign exchange remaining unchanged, exchange rate is likely to rise.

Q.6. How does giving incentives for exports influence foreign exchange rate?

Explain.

{CBSE, Delhi 2014 (III)}

Ans. Incentives for exports are aimed at increasing exports. Increase in exports will bring more foreign exchange into the country. Demand for foreign exchange remaining unchanged, exchange rate is likely to fall.

Q.7. Foreign exchange rate in India is on the rise recently. What impact is it likely to have on exports arm how? {CBSE, All India 2014 (I)}

Ans. Rise in foreign exchange rate means that one unit of foreign currency is worth more rupees than earlier. So one unit of foreign currency can now buy more goods and services from India. It makes Indian exzom j cheaper to the foreign buyers. This is likely to increase exports.

Q.8. The central bank takes steps to control rise in the price of foreign exchange. Explain the economic values it involves as far as the common man is concerned. {CBSE, Delhi Comptt. 2014}

Ans. Controlling rise in price of foreign exchange makes imports cheaper. The economic value is that common man now has to pay less for goods and services imported.

Q. 9. Government takes measures to restrict autonomous imports of gold. Explain the economic values desired to be achieved from this. {CBSE, All India Comptt. 2014}

Ans. Restricting autonomous imports of gold will reduce the foreign exchange demand. It will reduce 1m foreign exchange payments. Since autonomous payments decline, BOP deficit will decline. This decline will reduce pressure of deficit and it is the economic value realised.

Q. 10. What will be the effect of foreign investments in India on exchange rate? Explain. {CBSE, Delhi 2016}

Ans. Foreign investment adds to supply of foreign exchange. Demand remaining unchanged, it brings downward influence on the exchange rate.

Q. 11. Why are foreign exchange rate and supply of foreign exchange directly related? Explain. {CBSE, Delhi Comptt. 2016}

Ans. When foreign exchange rate rises, domestic goods becomes cheaper for foreign buyers. This raises demand for exports, causing rise in supply of foreign exchange. Similarly, when foreign exchange rate falls, domestic goods become costlier for foreign buyers, decreasing demand for the exports, causing fall in supply of foreign exchange.

Q. 12. 'Devaluation and Depreciation of currency is one and the same thing'. Do you agree? How do they affect the exports of a country?

{CBSE, Sample Paper 2018}

Ans. Depreciation and Devaluation both imply a fall in external value of a currency. However, the term 'Depreciation' is used under the floating exchange rate system, that is when the exchange rate system is determined by the combined market forces of demand and supply. A currency loses or gains value because of fluctuations in demand and supply.

The term 'Devaluation' is used in a system of fixed exchange rates. In this system, the exchange value of a currency is decided by the government. Devaluation of currency is the deliberate action of the government.

Depreciation and Devaluation of a currency normally encourages exports from a country as exports become cheaper for the foreign nationals and foreign currency can now buy more of domestic goods i.e. the international competitiveness of the goods and services of such a nation gets better.

Q. 13. The Indian Government launched 'Incredible India' or 'Atulya Bharat' Campaign to promote tourism in India. How will it affect the price of foreign exchange?

Ans. The launch of 'Incredible India' campaign will lead to increase in supply

of the foreign exchange in India (due to increase in foreign tourists). It will result in decrease in price of the foreign exchange.

Q. 14. A policy initiated by the Indian Government had an adverse impact on the value of Rupee in relation to foreign exchange. What does this indicate? Discuss this with the help of a numerical example. Also explain its effect on the exports and imports of the economy.

Ans. Adverse Impact on the value of Rupee in relation to Foreign Exchange is known as 'Depreciation' of domestic currency.

Numerical Example: Suppose, earlier, $1\$ = ₹70$. If after the policy, the exchange rate changes to $1\$ = ₹75$, then it indicates that rupee has depreciated.

Effect on Exports: Due to depreciation of domestic currency, more goods can be purchased from India with same amount of foreign currency. It means, exports from India will increase as they will become relatively cheaper.

Effect on Imports: It will result in decrease in imports as foreign goods will become costlier now.

REVISION EXERCISE

Multiple Choice Questions (MCQs)

- Which of the following items raises the supply of foreign exchange?
 - Import of goods from China
 - Indian students going to USA for MBA
 - Donation of 50 million \$ received from Microsoft
 - Purchase of land in England
- A change from ₹ 140 = 2 £ to ₹ 60 = 1 £ indicates that ₹ is:
 - Appreciating
 - Depreciating
 - Neither (a) nor (b)
 - Either (a) or (b)
- _____ refers to a system in which foreign exchange rate is determined by market forces and central bank influences the exchange rate through intervention.
 - Flexible Exchange Rate System
 - Managed Floating Rate System
 - Floating Exchange Rate
 - Fixed Exchange Rate System
- Supply curve of foreign exchange:
 - Horizontal straight line parallel to X-axis
 - Vertical straight line parallel to Y-axis
 - Slope downwards
 - Slope upwards
- Depreciation of domestic currency leads to rise in:
 - Exports
 - Imports
 - Both (a) and (b)
 - Neither (a) or nor (b)
- Imports of goods and services raises the _____ of foreign exchange.
 - Supply
 - Demand
 - Both (a) and (b)
 - Neither (a) nor (b)
- Flexible Exchange Rate System is also known as:
 - Pegged Exchange Rate System
 - Dirty Floating

(c) Floating Exchange Rate (d) Both (b) and (c)

8. Devaluation of currency means:

- e. Reduction in the value of domestic currency by the market forces
- f. Reduction in the value of domestic currency by the government
- g. Both (a) and (b)
- h. Neither (a) nor (b)

9. Other things remaining unchanged, when in a country the price of foreign currency rises, national income is: (CBSE, Delhi 2015}

- (a) Likely to rise (b) Likely to fall
- (c) Likely to rise and fall both (d) Not affected

10. Other things remaining the same, when in a country the market price of foreign currency falls, national income is likely:

{CBSE All India 2015}

- (a) to rise (b) to fall
- (c) to rise or to fall (d) to remain unaffected

11. Other things remaining the same, when foreign currency becomes cheaper, the effect on national income is likely to be:

{CBSE, Foreign 2015}

- (a) Positive (b) Negative
- (c) Positive and negative both (d) No effect

12. The value of US Dollar \$1 has gone down from ₹ 73 to ₹ 70. It means that:

- (a) Indian rupee has appreciated (b) US Dollar has depreciated
- (c) Both (a) and (b) (d) None of these

Ans.1. (c); 2. (a); 3. (b); 4. (d); 5. (a); 6. (b); 7. (c); 8. (b); 9. (a); 10. (b); 11. (b); 12. (c)

Short Answer Type Questions (3-4 Marks each)

1. Give the meaning of: (i) Foreign Exchange; (ii) Foreign Exchange Rate; (iii) Foreign Exchange Market.

2. What is meant by foreign exchange rate? Give three reasons why people desire to have foreign exchange. {CBSE, Delhi 2005}

3. Give two reasons for rise in demand for a foreign currency when its price falls. {CBSE, Sample Paper 2008}

4. Give three sources each of demand and supply of foreign exchange. {CBSE, Delhi 2006, Sample Paper 2008, All India Comptt. 2016}

OR

Explain two sources each of demand and supply of foreign exchange.

{CBSE, Delhi 2009}

5. Why does the demand curve of foreign exchange slope downwards?

6. Giving two examples explain the relation between the rise in price of a currency and its demand. {CBSE, Delhi 2010 (III)}

7. What is meant by foreign exchange rate? Why does a rise in foreign exchange rate cause a rise in its supply? {CBSE, Delhi 2007, 08}

8. Briefly discuss the concepts of currency appreciation and currency depreciation.

9. Explain how 'Depreciation of currency' promotes exports of a country? {CBSE, Sample Paper 2017}

OR

Explain the effect of rise in price of foreign currency on exports.

{CBSE, Delhi Comptt. 2015 (III)}

10. Explain the effect of appreciation of domestic currency on imports.

{CBSE, Sample Paper 2014, Delhi 2013}

11. Distinguish between devaluation and depreciation of domestic currency.

{CBSE, Delhi 2010 (I, II), Delhi Comptt. 2018}

12. What is meant by fixed exchange rate system and flexible exchange rate system?

OR

What are fixed and flexible exchange rates? {CBSE, All India 2015}

13. Write short notes on: (i) Spot market; (ii) Forward market.

14. Distinguish between fixed and flexible exchange rate.

{CBSE, Foreign 2009 (III)}

15. When price of a foreign currency rises, its supply also rises. Explain why.

{CBSE, Delhi 2011}

16. Explain why there is a rise in demand for foreign exchange when its price falls.

{CBSE, All India Comptt. 2011 (I)}

17. Give the meaning of foreign exchange rate. How is it determined under flexible exchange rate regime?

{CBSE, All India Comptt. 2011 (II)}

18. Explain the effect of a fall in the price of foreign currency on exports.

{CBSE, Delhi Comptt. 2012 (I)}

19. How is exchange rate determined in the foreign exchange market? Explain.

{CBSE, All India 2013}

20. In India, exchange rate of U.S. Dollar has been risen considerably. What is its likely impact on Indian exports and why?

{CBSE, Delhi Comptt. 2013}

21. Foreign exchange rates have risen considerably in a country. What is its likely impact on imports of that country and why?

{CBSE, All India Comptt. 2013}

22. When foreign exchange rate in a country is on the rise, what impact is it likely to have on imports and how?

{CBSE, All India 2014 (II)}

23. Explain the effect of appreciation of domestic currency on exports.

{CBSE, All India 2014 (III)}

24. What is depreciation of Rupee? What is its likely impact on Indian imports and how?

{CBSE, Foreign 2014 (I)}

25. What is the role of a Central Bank in the following exchange rate: (a) Fixed exchange; (b) Floating exchange; and (c) Managed floating.

{CBSE, Sample Paper 2015}

26. Explain the meaning of Managed Floating Exchange Rate.

{CBSE, All India 2015}

27. Why are foreign exchange rate and demand for foreign exchange inversely related? Explain.

{CBSE, Delhi Comptt. 2016}

28. 'Appreciation and Revaluation of currency are one and the same thing.' Do you agree? Comment.

Long Answer Type Questions (6 Marks each)

1. Explain the determination of equilibrium exchange rate in foreign exchange market.

OR

"Equilibrium rate of exchange is determined when the demand for foreign exchange is equal to its supply." Explain this statement.

2. Briefly discuss the major reasons for demand and supply of foreign exchange.

3. What is a foreign exchange market? Discuss the major functions performed by a foreign exchange market.

4. Discuss briefly the meanings of:

(i) Fixed Exchange Rate

(ii) Flexible Exchange Rate

(iii) Managed Floating Exchange Rate {CBSE, Delhi 2018}

5. Give the meaning of 'foreign exchange' and 'foreign exchange rate'. Giving reason, explain the relation between foreign exchange rate and demand for foreign exchange.

{CBSE, All India 2012}

6. Explain three sources of demand for foreign exchange and three sources of supply of foreign exchange. {CBSE, Delhi Comptt. 2017}

7. Explain the distinction between the flexible exchange rate and the managed floating

exchange rate.

{CBSE, Foreign 2017}

8. Explain by giving examples, the distinction between depreciation and devaluation of domestic currency.

{CBSE, Foreign 2017}

9. Distinguish between the fixed exchange rate and the floating exchange rate. If exchange rate falls, explain its effects on exports and imports.

{CBSE, All India Comptt. 2017}

Hint: Effect on Exports: If exchange rate falls, domestic goods will become dearer to the foreign buyers. This will reduce exports.

Effect on Imports: If exchange rate falls, foreign goods will become cheaper and it will increase imports. 10. Define fixed exchange rate. How is the exchange rate determined in a flexible exchange rate system?

{CBSE, All India 2018}

HOTS HIGHER ORDER THINKING SKILLS QUESTIONS

Q.1. Classify whether the following transactions will be recorded in current account or capital account.

- (i) Purchase of shares of Reliance by Microsoft,
- (ii) Imports of computer spare parts from Germany,
- (iii) Borrowings from World Bank.
- (iv) Repayment of loan by Indian Government taken from Japan,
- (v) Gifts received from a relative in America,
- (vi) Purchase of Land in England,
- (vii) Shipping service by an Indian company to a foreign company.

Ans. Current Account: (ii), (v), (vii). Capital Account: (i), (iii), (iv), (vi).

Q.2. A country exported goods worth ₹ 600 crores, whereas, its imports amounted to

₹ 700 crores. Calculate the volume of balance of trade and indicate its nature.

Ans. Balance of Trade (BOT) = Exports - Imports = 600 - 700 = ₹ (-) 100 Crores BOT is unfavorable to the extent of ₹ 100 crores as imports are more than exports.

Q. 3. State whether the following transactions will be recorded on debit or credit side of BOP.

- (i) Loan from IMF to cover deficit of BOP.
- (ii) Indian Government repays loan taken from IMF.
- (iii) Purchase of shares of Infosys by a Japanese resident.
- (iv) Export of Jute to Sri Lanka.
- (v) Acquisition of a foreign company by Tata,
- (vi) Purchase of toys from China.

Ans. Transactions relating to inflow of foreign exchange will be recorded on the credit side and outflows of foreign exchange on the debit side. Debit Side: (ii), (v), (vi); Credit Side: (i), (iii), (iv).

Q.4. Identify the following items as visible items or invisible items:

- (i) Export of computer software.
- (ii) Import of LCD screen from Malaysia.
- (iii) Banking service to NRI.
- (iv) Export of Tea to Thailand,
- (v) Consultancy services of TCS used by a foreign firm.

Ans. Visible Items: (ii), (iv); Invisible Items: (i), (iii), (v).

Q.5. Are the following entered (i) on the credit side or the debit side and (ii) in the current account or capital account in the Balance of Payments account? You must give reason for your answer.

- d. Investments from abroad. (CBSE, All India Comptt. 2013, Delhi Comptt. 2018}
- e. Transfer of funds to relatives abroad {CBSE, All India Comptt. 2013}
- f. Imports of machinery. {CBSE, Delhi Comptt. 2018}

Ans. (a) Investments from abroad: It is recorded in capital account because it creates a liability to pay foreign exchange. It is recorded on credit side because it leads to inflow of foreign exchange.

(b) Transfer of funds to relatives abroad: It is recorded in the current account because it does not change any liability or an asset. It is recorded on debit side because it leads to outflow of foreign exchange.

(c) Imports of machinery: It is recorded as visible items in the current account because it does not change any liability or an asset. It is recorded on debit side because it leads to outflow of foreign exchange.

Q.6. Distinguish between current account and capital account of the balance of payments account on the basis of its components.

{CBSE, Delhi Comptt. 2014}

Ans. The current account of BOP records: Exports and imports of goods, Exports and imports of services. Income receipts and payments and Transfer receipts and payment.

On the other hand, Capital Account records: Borrowings from and to abroad, Investments from and to abroad and Decrease and increase in foreign exchange reserves.

Q.7. Where will sale of machinery to abroad be recorded in the Balance of Payments Accounts? Give reasons. {CBSE, Delhi 2015}

Ans. Sale of machinery to abroad is export of goods and thus recorded in the Current Account. As it brings in foreign exchange, it is recorded on the credit side.

Q.8. Where is 'borrowings from abroad' recorded in the Balance of Payments Accounts? Give reasons. {CBSE, All India 2015}

Ans. 'Borrowings from abroad' is recorded in the 'capital account' of BOP account because it increases international liability of the country. It is recorded on the credit side because it brings in foreign exchange into the country.

Q.9. Giving reasons explain where charity to foreign countries is recorded in the Balance of Payments Accounts.

{CBSE, Foreign 2015}

Ans. Charity to foreign countries is recorded in the current account of BOP account because it is a transfer payment. It is recorded on the debit side because it leads to outflow of foreign exchange.

Q.10. In which sub-account and on which side of balance of payments account, will foreign investments in India be recorded? Give reasons.

{CBSE, Delhi 2016}

Ans. Foreign investment will be recorded in the capital account of the balance of payments account because these give rise to foreign exchange liabilities.

Foreign investment will be recorded on the credit side because these bring in foreign exchange to the economy.

Q. 11. Indian investors lend abroad. Answer the following questions:

(a) In which sub-account and on which side of the Balance of Payments Account such lending is recorded? Give reasons.

(b) Explain the impact of this lending on market exchange rate.

{CBSE, All India 2016}

Ans. (a) Indians lending abroad is recorded in capital account of Balance of Payments account because it leads to creation of foreign exchange assets. It is recorded on the debit side because it leads to outflow of foreign exchange

(b) Lending abroad increases demand for foreign exchange. Supply of foreign exchange remains unchanged, exchange rate may rise.

Q.12. What will be the effect of the following on the Balance of Payments: (i) 'Make in India' Programme:

(ii) Import of Pulses. {CBSE, Delhi Comptt. 2016}

Ans. (i) 'Make in India' will increase supply (inflow) of foreign exchange in India, causing improvement in the balance of payments position.

(ii) Import of pulses will lead to outflow of foreign exchange from the country, causing adverse effect on balance of payment position.

Q.13. State the effect of rise in the price of foreign currency on the Balance of Payments situation. {CBSE, All India Comptt. 2016}

Ans. Rise in price of foreign currency will make imports costlier. So, imports will fall and it will be favourable for Balance of Payments as demand for foreign exchange will fall.

Q.14. 'Deficit or Disequilibrium in BOP may occur either due to autonomous transactions or due to accommodating transactions.' Defend or refute.

Ans. The given statement is refuted. Deficit or disequilibrium occurs due to autonomous transactions To remove the deficit, accommodating transactions are carried out.

Q.15. According to recent media reports: 'USA has accused China of currency devaluation to promote its exports'. In the light of the given media report comment, how exports can be promoted through the Currency devaluation? {CBSE, Sample Paper 2019}

Ans. USA has a valid point of argument as devaluation of a currency encourages exports of a country. As exported goods become cheaper in the international market giving a competitive edge for the goods of domestic country (China). Devaluation of the value of domestic currency promotes the exports of the country and may adversely impact the production and sale of importing country (USA).

Q.16. What is meant by Current Account Deficit (CAD) and Current Account Surplus (CAS)? State their significance.

{CBSE sample Paper 2019}

Ans. Current Account Deficit (CAD) is a situation that arises when the receipts on current account are less than the payments on current account. In simple words, Current Account Deficit (CAD) arises when the value of exports of goods and services is less than the value of imports of goods and services Current Account surplus (CAS) is a situation that arises when the receipts on current account is more than the payments on current account. In

simple words, Current Account Surplus (CAS) arises when the value of exports of goods and services is more than the value of imports of goods and services.

CAD signifies that the nation is a borrower from rest of the world, whereas, CAS signifies that the nation is a lender to the rest of the world.

REVISION EXERCISE

Multiple Choice Questions (MCQs)

1. Who out of the following is not included in "Residents" in BOP transactions?
 - (a) Firms
 - (b) Foreign military personnel
 - (c) Government agencies
 - (d) Individuals
2. An accounting statement that provides a systematic record of all the economic transactions, between residents of a country and the rest of the world is.
 - (a) Balance of Payments
 - (b) Balance of Trade
 - (c) Government Budget
 - (d) None of these
3. Balance of Payments is a concept.
 - (a) Stock
 - (b) Flow
 - (c) Both (a) and (b)
 - (d) Neither (a) nor (b)
4. Inflow of foreign exchange is recorded on the.
 - (a) Credit
 - (b) Debit
 - (c) Either (a) or (b)
 - (d) Neither (a) nor (b)
5. When receipts of foreign exchange are more than payments of foreign exchange, BOP is:
 - (a) Balanced
 - (b) Surplus
 - (c) Deficit
 - (d) Neither (a) nor (b)
6. "Unilateral Transfers" are also known as:
 - (a) Bilateral Transfers
 - (b) Both (a) and (b)
 - (c) Both
 - (d) None of these
7. Balance on 'Balance of Trade' can be:
 - (a) Surplus
 - (b) Balanced
 - (c) Deficit
 - (d) None of these

(c) Deficit (d) Either (a) or (b) or (c)

8. Which of the following is not a component of balance of Payment?

(a) Current account (b) Capital Account
(c) Nominal Account (d) None of these

9. Export and import of goods is also known as: (a) Indivisible Trade (c) One-sided transactions

(a) Current account (b) Visible Trade
(c) One-sided transactions (d) Unrequited transfers

10. refers to the difference between exports and imports of visible items.

(a) Balance of payments (b) Balance of trade
(c) Both (a) and (b) (d) Neither (a) nor (b)

11. Autonomous transactions take place on

(a) Current Account (b) Capital Account
(c) Both (a) and (b) (d) Neither (a) nor (b)

12. Autonomous transactions are undertaken to cover the deficit or surplus in autonomous transactions.

(a) Current Account (b) Current Account
(c) Accommodating (d) None of these

13. _____ is the difference between value of goods sold to the rest of the world and value of goods imported from rest of the world.

(a) Balance of payment (b) Balance of trade
(c) Balance of current account (d) Balance of capital account

14. Gifts and remittances to abroad are recorded on the:

(a) Credit side of Current Account
(b) Debit side of Capital Account
(c) Debit side of Current Account
(d) Credit side of Capital Account

15. Export of machinery is recorded on the:

- (a) Debit side of Current Account
- (b) Credit side of Current Account
- (c) Credit side of Capital Account
- (d) Debit side Capital Account

16. Surplus in BOP arises when:

- a. Autonomous Payments > Autonomous Receipts
- b. Accommodating Receipts > Accommodating Payments
- c. Accommodating Payments > Accommodating Receipts
- d. Autonomous Receipts > Autonomous Payments

17. Autonomous transactions take place on:

- (a) Current Account only
- (b) Capital Account only
- (c) Both Current and Capital Accounts
- (d) Neither Current Account nor Capital Account

18. 'Import of Machinery' is recorded in the _____ Account and 'Borrowings from abroad' is recorded in the _____ Account.

- (a) Current, Capital (b) Capital, Current
- (c) Capital, Capital (d) Current, Current

19. Foreign exchange transactions dependent on other foreign exchange transactions are called: {CBSE, Delhi 2016}

- (a) Current Account Transactions
- (b) Capital Account Transactions
- (c) Autonomous Transactions
- (d) Accommodating Transaction

20. Foreign exchange transactions which are independent of other transactions in the Balance of Payments Account are called:

{CBSE, All India 2016}

- (a) Current Transactions (b) Capital Transactions
(c) Autonomous Transactions (d) Accommodating Transactions

21. Balance of Payments 'deficit' is the excess of:

{CBSE, Foreign 2016}

- e. Current account payments over current account receipts.
- f. Capital account payments over capital account receipts.
- g. Autonomous payments over autonomous receipts.
- h. Accommodating payments over a accommodating receipts.

22. A company located in India receives a loan from a company located abroad. How is this transaction recorded in India's balance of payments account? (Choose the correct alternative)

{CBSE, Delhi Comptt. 2017}

- (a) Credit side of current account
- (b) Debit side of current account
- (c) Credit side of capital account
- (d) Debit side of capital account

23. An Indian company located in India invests in a company located abroad. This transaction is entered in India's balance of payments account on: (choose the correct alternative)

{CBSE, All India Comptt. 2017}

- (a) Credit Side of Current Account
- (b) Debit Side of Current Account
- (c) Credit Side of Capital Account
- (d) Debit Side of Capital Account

Ans. 1 (b); 2. (a); 3. (b); 4. (a); 5. (b); 6. (b); 7. (d); 8. (c); 9. (b); 10. (b); 11. (c); 12. (c); 13. (b); 14. (c); 15. (b); 16. (d); 17. (c); 18. (a); 19. (d); 20. (c); 21. (c); 22. (c); 23 (d)

Short Answer Type Questions (3-4 Marks each)

5. What is meant by economic transactions? How can they be categorised?
6. Why is it said that the balance of payments is always balanced?
7. Distinguish between balance of trade and balance of payments.

{CBSE, Delhi 2003}

8. What is meant by visible items and invisible items in the Balance of Payments account? Give two examples of invisible items.

{CBSE, Delhi 2005}

What does balance of payments account show? Name the two parts of the balance of payments account.

{CBSE, Delhi 2011 (III)}

5. Distinguish between balance on trade account and balance on current account.

{CBSE, All India 2009, 2011, Delhi 2013}

OR

Distinguish between Balance of trade and Balance on current account of the Balance of Payments account.

{CBSE, All India Comptt. 2014}

OR

Distinguish between trade account and current account of balance of payments account.

{CBSE, All India Comptt. 2015 (III)}

7. Which transactions determine the balance of trade? When is balance of trade in surplus?

{CBSE, All India 2011}

8. Explain the meaning of deficit in a Balance of Payments account.

{CBSE, Sample Paper 2010, All India Comptt. 2013}

OR

How is balance of payment 'deficit' measured? Explain.

{CBSE, Foreign 2014}

9. State the nature of transactions that are recorded in current account of the Balance of Payments account.

{CBSE, Sample Paper 2008}

10. State the components of current account of the Balance of Payments account.

{CBSE, Delhi 2008, Delhi 2011 (II)}

OR

Name the broad categories of transactions recorded in the 'current account' of the Balance of Payments Accounts.

{CBSE, Delhi 2015}

OR

List the items of the current account of balance of payments account. Also define 'balance of trade'.

{CBSE, Delhi 2009}

11. State the components of capital account of balance of payments.

{CBSE, Delhi 2011 (I)}

OR

Name the broad categories of transactions recorded in the 'capital account' of the Balance of Payments Accounts.

{CBSE, Delhi 2015}

13. State any four items each of current account and capital account of the balance of payments account.

{CBSE, Delhi 2004}

Distinguish between current account and capital account of balance of payment account. Is import of machinery recorded in current account or capital account?

{CBSE, Sample Paper 2012}

16. Explain the meaning of deficit in balance of payments.

{CBSE, Delhi 2010 (I, II), 20i4f}

17. Distinguish between autonomous and accommodating transactions of balance of payments account

{CBSE, Delhi 2010 (III), All India 2014}

OR

Distinguish between the autonomous transactions and the accommodating transactions in the Balance of Payments. What is the significance of this distinction? *{CBSE, Delhi Comptt. 2013, 20ii}*

Hint: Significance of Distinction: The deficit/surplus in Balance of Payments (BOP) is determined by autonomous transactions only. BOP is said to be in deficit when autonomous receipts fall short of autonomous payments.

16. List the items included as invisibles in the balance of payments account.

{CBSE, All India Comptt. 2012}

22. What does the Balance of Payments Account record? Distinguish between the "balance on current account" and the "balance of trade" in this account.

{CBSE, Sample Paper 2014}

23. What is meant by "balance of payment" account? Distinguish between the "balance on current account" and "balance of trade" account. In which account would remittances from family members from abroad be accounted? *{CBSE, Sample Paper 2015}*

24. Give the meanings of 'autonomous' transactions and 'accommodating' transactions in the Balance Payments Accounts.

{CBSE, Foreign 20ii}

25. Indian investors borrow from abroad. Answer the following: (a) In which sub-account and on which side of the Balance of Payments Account will this borrowing be recorded? Give reason; (b) Explain what the impact of this borrowing on exchange rate. *{CBSE, Foreign 2016}*

26. What is meant by 'official reserve transactions'? Discuss their importance in Balance of

Payments.

{CBSE, Sample Paper 2018}

22. Define Balance of Payments. Discuss briefly the components of current account.

{CBSE, Sample Paper 20117}

Long Answer Type Questions (6 Marks each)

7. What is the meaning of Balance of Payments? What are its main components? Explain them briefly>

8. What is meant by current account? Explain its various components.

9. What do you mean by capital account? Briefly discuss its components.

10. Distinguish between: (i) Balance of Trade and Balance of Payments; (ii) Current Account and Capital Account.

11. Explain the distinction between autonomous and accommodating transactions in balance of payments Also explain the concept of balance of payments 'deficit' in this context.

{CBSE, Delhi 2012}

12. Distinguish (a) between current account and capital account, and (b) between autonomous transactions and accommodating transactions of balance of payments account.

{CBSE, All India 2017}

Example 1. Calculate APC and APS from the following schedule:

Income (Y)	100	200	300
Consumption (C)	80	120	180

Solution:

Income (Y) (₹)	Consumption (C) (₹)	Saving (S) $S=Y-C$ (₹)	APC $C \div Y = APC$	APC $S \div Y = APS$
100	80	20	$80 \div 100 = 0.80$	$20 \div 100 = 0.20$
200	120	80	$120 \div 200 = 0.60$	$80 \div 200 = 0.40$
300	180	120	$180 \div 300 = 0.60$	$120 \div 300 = 0.40$

Example 2. If APC of an economy is 0.8, what should be saving at an income level of ₹ 2,000 crores?

Solution:

We know, $APC + APS = 1$

Given : $APC = 0.80$; So, $APS = 1 - 0.8 = 0.2$

$$\text{Also, } APS = \frac{\text{Saving}(S)}{\text{Income}(Y)} \text{ i.e. } 0.2 = \frac{\text{Saving}(S)}{2,000}$$

Saving = ₹ 400 crores

Example 3.

(i) The disposable income (Y) is ₹ 1200 crores and consumption expenditure (C) is ₹ 800 crores. Calculate the APC.

(ii) If saving is ₹ 500, out of an income of ₹ 5,000, how much is the APS?

(iii) If disposable income is ₹ 1,000 and consumption expenditure is ₹ 750, find out average propensity to save. {CBSE, Delhi 2001}

(iv) If income is ₹ 500 and saving are ₹ 100, calculate APC.

(v) When income rises from ₹ 1,000 to ₹ 1,100, saving rise by ₹ 30. Find out MPS and MPC.

Solution:

$$(i) \text{ APC} = \frac{\text{Consumption}(C)}{\text{Income}(Y)} = \frac{800}{1,200} = 0.67$$

$$(ii) \text{ APS} = \frac{\text{Saving}(S)}{\text{Income}(Y)} = \frac{500}{5,000} = 0.10$$

$$(iii) \text{ APS} = \frac{\text{Saving}(S)}{\text{Income}(Y)} = \frac{1,000 - 750}{1,000} = 0.25$$

$$(iv) \text{ APC} = \frac{\text{Consumption}(C)}{\text{Income}(Y)} = \frac{500 - 100}{500} = 0.80$$

$$(v) \text{ MPS} = \frac{\text{Change in Saving}(\Delta S)}{\text{Change in Income}(\Delta Y)} = \frac{30}{1,100 - 1,000} = 0.30$$

$$MPC = 1 - MPS = 1 - 0.30 = 0.70$$

Example 4. Calculate MPC from the following schedule:

Income (Y)	0	100	200	300	400
Consumption (C)	60	110	150	180	200

Solution :

Income (Y) (₹)	Consumption (C) (₹)	Change in Consumption (ΔC) (₹)	Change in Income (ΔY) (₹)	MPC $MPC = \Delta C \div \Delta Y$
0	60	-	-	-
100	110	50	100	0.5 (=50÷100)
200	150	40	100	0.40 (=40÷100)
300	180	30	100	0.30 (=30÷100)
400	200	20	100	0.20 (=20÷100)

Example 5. The level of income, in an economy, increases from ₹ 20,000 crores to ₹ 70,000 crores and as a result the level of consumption increases from ₹ 15,000 crores to ₹ 45,000 crores. Calculate the MPC.

Solution:

Income (Y) (₹)	Consumption (C) (₹)	Change in Consumption (ΔC) (₹)	Change in Income (ΔY) (₹)	MPC $MPC = \Delta C \div \Delta Y$
20,000	15,000	-	-	-
70,000	45,000	30,000	50,000	0.60

Example 6. Calculate the value of MPS from the given table:

Income (₹)	100	200	300	400	500
Saving (₹)	15	40	70	110	160

Solution:

Income (Y) (₹)	Saving (S) (₹)	Change in Saving (ΔS) (₹)	Change in Income (ΔY) (₹)	MPC $MPC = \Delta C \div \Delta Y$
100	15	-	-	-
200	40	25	100	$0.25 = (25 \div 100)$
300	70	30	100	$0.30 = (30 \div 100)$
400	110	40	100	$0.40 = (40 \div 100)$
500	160	50	100	$0.50 = (50 \div 100)$

Example 7. Complete the following table:

Level of Income (₹)	400	500	600	700
Consumption Expenditure (₹)	240	320	395	465
MPC	-	-	-	-
MPS	-	-	-	-

Solution:

Level of Income (Y) (₹)	Consumption Expenditure (C) (₹)	MPC $MPC = \Delta C \div \Delta Y$	MPC $MPC = \Delta S \div \Delta Y$
400	240	-	-
500	320	$0.80 = (80 \div 100)$	$0.20 = (1 - 0.80)$
600	395	$0.75 = (75 \div 100)$	$0.25 = (1 - 0.75)$
700	465	$0.70 = (70 \div 100)$	$0.30 = (1 - 0.70)$

Example 8. Complete the following table {CBSE, Delhi 2009 (I)}

Income	Saving	Marginal Propensity to Consume	Average Propensity to Save
0	-12	-	-
20	-6	-	-

40	0	-	-
60	6	-	-

Solution:

Income (Y) (₹)	Saving (S) (₹)	Consumption (C) (₹)	Marginal Propensity to Consume (MPC) $MPC = \Delta C \div \Delta Y$	Average Propensity to save (APS) $APS = S \div Y$
0	-12	12	-	-
20	-6	26	0.70	-0.30
40	0	40	0.70	0.00
60	6	54	0.70	0.10

Example 9. Complete the following table {CBSE, Delhi 2009 (III)}

Income	Consumption	Marginal Propensity to Save	Average Propensity to Save
0	40	-	-
50	70	-	-
100	100	-	-
150	120	-	-

Solution:

Income (Y) (₹)	Consumption (C) (₹)	Saving (S) (₹)	Marginal Propensity to Save $MPS = \Delta S \div \Delta Y$	Average Propensity to save $APS = S \div Y$
0	40	-40	-	-
50	70	-20	0.40	-0.40
100	100	0	0.40	0

150	120	30	0.60	0.20
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Example 10. Complete the following table {CBSE, All India 2009 (I)}

Income	Marginal Propensity to Consume	Saving	Average Propensity to Save
0	-	-90	-
100	0.6	-	-
200	0.6	-	-
300	0.6	-	-

Solution:

Income (Y)	MPC	MPS MPS=1-MPC	ΔS $\Delta S = \text{MPS} \times \Delta Y$	Saving (S)	APS APS=S \div Y
0	-	-	-	-90	-
100	0.6	0.4	40	-50	-0.50
200	0.6	0.4	40	-10	-0.05
300	0.6	0.4	40	30	0.10

Example 11. From the following schedule, compute to APC, APS, MPC and MPS:

Income (₹)	500	100	150	200
Saving (₹)	10	40	75	120

Solution:

Income (Y) ₹	Saving (S) ₹	Consumption (C) ₹	APC	APS	MPC	MPS
50	10	40	0.80	0.20	-	-
100	40	60	0.60	0.40	0.40	0.60
150	75	75	0.50	0.50	0.30	0.70
200	120	80	0.40	0.60	0.10	0.90

Formulae used $C=Y-S$; $APC = C \div Y$; $APS = S \div Y$; $MPC = \Delta C \div \Delta Y$; $MPS = \Delta S \div \Delta Y$

Example 12. Given that national income is ₹ 80 crore and consumption expenditure ₹ 64 crore, find out average propensity to save. When income rises to ₹ 100 crore and consumption expenditure to ₹ 78 crore, what will be the average propensity to consume and the marginal propensity to consume? {CBSE, Delhi 2011(I)}

Solution:

$$\text{Average Propensity to Save} = \frac{\text{Saving}(S)}{\text{Income}(Y)} = \frac{80 - 64}{80} = \frac{16}{80} = 0.20$$

When income rises to ₹ 100 crore and consumption expenditure to ₹ 78 crore

$$\text{Average Propensity to Consume} = \frac{\text{Consumption}(C)}{\text{Income}(Y)} = \frac{78}{100} = 0.78$$

$$\text{Marginal Propensity to Consume} = \frac{\text{Change in Consumption}(\Delta C)}{\text{Change in Income}(\Delta Y)} = \frac{78 - 64}{100 - 80} = \frac{14}{20} = 0.70$$

Example 13. The consumption expenditure and investment demand are ₹ 600 crores and ₹ 300 crores respectively, when income is ₹ 1,000 crores. Calculate : (i) AD, (ii) AS (iii) Saving.

Solution :

(i) AD = Consumption expenditure (C) + Investment demand (I)

$$AD = 600 + 300 = ₹ 900 \text{ crores.}$$

(ii) We know, aggregate supply (AS) and national income (Y) mean one and same thing.

$$\text{So, AS} = ₹ 1,000 \text{ crores.}$$

(iii) Given AS = 1,000 and C = 600

$$\text{It means, Saving (S) = Y - C} = ₹ 400 \text{ Crores} \quad (\ominus Y = C + S)$$

Ans. (i) AD = ₹ 900 crores; (ii) AS = ₹ 1,000 crores, (iii) Saving = ₹ 400 crores.

Example 14. Using the equation of consumption function: $C = c + b(y)$, calculate consumption expenditure at the income level of ₹ 500 crores, if autonomous consumption is ₹ 40 crores and 40% of additional income is saved.

Solution:

Given: MPS = 0.4 (as 40% of additional income is saved)

MPC or $b = 1 - \text{MPS} = 1 - 0.4 = 0.6$

Given : Autonomous Consumption (c) = ₹ 40 crores ; Income (Y) = ₹ 500 crores

Putting the values of b , c and Y in the consumption function, we get:

$$C = 40 + 0.6 \times 500 = \text{₹ } 340 \text{ crore}$$

Ans. Consumption Expenditure (C) = ₹ 340 crores

Example 15. The saving curve of an economy makes a negative intercept of ₹ 50 crores and 20% of additional income is saved. Derive the saving and consumption function.

Solution:

Given: Autonomous Consumption (\bar{C}) = ₹ 50 crores;

{Negative intercept of saving curve indicates \bar{C} }

MPS = 0.2 (as 20% of additional income is saved)

Saving Function is given as: $S = \bar{C} + (1 - b) Y$

Putting the values of $(1 - b)$ or MPS and $-\bar{C}$, we get: $S = -50 + 0.2 (Y)$

Consumption Function is given as: $C = \bar{C} + b(Y)$

b or MPC = $1 - \text{MPS} = 1 - 0.2 = 0.8$

Putting the values of b and (\bar{C}) in the consumption function, we get: $C = 50 + 0.8 (Y)$

Example 16. With the help of saving function: $S = -20 + 0.3 (Y)$ calculate consumption expenditure at the income level of ₹ 1,000 crores.

Solution:

We know, Saving function is expressed as : $S = -\bar{C} + (1 - b) Y$

It means: - 20 indicates that autonomous consumption (\bar{C}) = ₹ 20 crores

(Assuming value of (\bar{C}) in ₹ crores)

0.3 indicates $(1 - b)$, i.e., MPS = 0.3

We know, Consumption Function is given as : $C = \bar{C} + b(Y)$

MPC or $b = 1 - \text{MPS} = 1 - 0.30 = 0.70$

Income or $Y = ₹ 1,000$ crores

Putting the values of b , (\bar{C}) and Y in the consumption function, we got:

$$C = 20 + 0.7 \times 1,000 = ₹ 720 \text{ crores}$$

Ans. Consumption Expenditure (C) = ₹ 720 crores

Example 17. On the basis of consumption function: $C = 120 + 0.40 Y$; answer the following questions:

- (i) Derive the saving function.
- (ii) Determine the saving at the income level of ₹ 500 crores.
- (iii) At what level of income, saving becomes zero?

Solution:

(i) We know, Consumption function is expressed as: $C = \bar{C} + b(Y)$

It means: 120 is the autonomous consumption (\bar{C}) and 0.40 indicates MPC or b

Saving Function is given as: $S = -(\bar{C}) + (1-b)Y$

MPS or $(1-b) = 1 - MPC = 1 - 0.40 = 0.60$

Putting the values of $(1-b)$ or MPS and $-\bar{C}$, we get: $S = -120 + 0.60(Y)$

(ii) For saving at income (Y) of ₹ 500 crores, putting the values of $(1-b)$, \bar{C} and Y in the saving function, we get: $S = -120 + 0.60 \times 500 = ₹ 180$ crores

(iii) Saving will become zero at break-even point, i.e. when $Y = C$.

Replacing C with Y in the consumption function to determine the break-even point.

$$Y = 120 + 0.40Y$$

$$0.60Y = 120$$

$$Y = 200$$

Saving will become zero at income level of ₹ 200 crores

Example 18. If MPC is one-third of MPS and consumption zero level of national income is ₹ 40 crores, derive the consumption and saving function.

Solution:

$$\text{Given : } MPC = \frac{1}{3}MPS$$

$$\text{We know: } MPC + MPS = 1$$

Putting value of MPC from (1) in (2), we get:

$$\frac{1}{3}MPS + MPS = 1$$

$$MPS = \frac{2}{4} = 0.75$$

$$MPC = \frac{1}{3} \times 0.75 = 0.25$$

$$\{\text{Alternately : } MPC = 1 - MPS = 1 - 0.75 = 0.25$$

Consumption Function is given as : $C = \bar{C} + b(Y)$

Autonomous Consumption (\bar{C}) = ₹ 40 crores and b or MPC = 0.25

Putting the values of b and \bar{C} in the consumption function, we get: $C = 40 + 0.25(Y)$

Saving Function is given as : $S = -\bar{C} + (1 - b)Y$

Putting the values of (1-b) or MPS and \bar{C} , we get: $S = -40 + 0.75(Y)$

Example 19. The consumption function for an economy is: $C = 20 + 0.8Y$ (assuming amount in ₹ crores). Determine the level of income when average propensity to consume will be one.

Solution.

Average propensity to consume (APC) is 1 at break-even point, i.e., when consumption (C) = Income (Y)

Putting $C = Y$ in the consumption function, we get:

$$Y = 20 + 0.8Y$$

$$Y = 100.$$

It means, APC will be 1 when the level of income is ₹ 100 crores.

Note : Proof: Consumption at income of ₹ 100 crores will be: $C = 20 + 0.8 \times 100 = 100.$

$$APC = \frac{\text{Consumption}(C)}{\text{Income}(Y)} = \frac{100}{100} = 1$$

Example 20. The break-even level of income for an economy is given to be ₹ 10,000 crores. If the economy saves 20 per cent of additional income, then calculate the value of autonomous consumption

Solution.

Given: MPS = 0.2

MPC or b = 1 – MPS = 1- 0.2 = 0.8

Consumption (C) = Income (Y) at Break-even level of income

So, Consumption (C) = 10,000

Consumption Function is expressed as: $C = \bar{C} + b(Y)$

Putting the values of C, b and Y, we get: $10,000 = \bar{C} + 0.8 (10,000)$

Autonomous Consumption $\bar{C} = ₹ 2,000$ crores

Example 21. Given below is the consumption function of an economy:

$$C = 100 + 0.5Y.$$

With the help of a numerical example, show that in this economy, as income increases, APC will decrease. {CBSE, Sample Paper 2010}

Solution:

Given consumption function : $C = 100 + 0.5Y.$

To show that APC decreases with increase in income, consider the following hypothetical schedule:

Income (Y) (₹)	Consumption (C) (₹) $C=100+0.5Y$	APC $APC = C \div Y$
100	150(=100+0.5×100)	1.50 (=150÷100)
200	200 (=100+0.5×200)	1 (= 200 ÷ 200)
300	300 (=100+0.5×300)	0.83 (= 250 ÷ 300)
400	400 (=100+0.5×400)	0.75 (=300 ÷ 400)
500	500 (=100+0.5×500)	0.70 (= 350 ÷ 500)

As seen in the given schedule, when the income increases from ₹ 100 crores to ₹ 200 crores and then to ₹ 300 crores and so on, APC decreases from 1.5 to 1 and then to 0.83 and keeps on decreasing with increases in income. Therefore, with an increase in income, APC decreases.

Example 22. If a consumption function a hypothetical economy is given as:

$$C = 100 + 0.6 Y; \text{ then}$$

(i) What will be the values of marginal propensity to consume and marginal propensity to save for the economy?

(ii) Write the corresponding saving function.

(iii) Write the corresponding saving function. {CBSE, All India 2018}

Solution :

(i) $C = 100 + 0.6Y$ (given)

$$\text{So, MPC} = 0.6$$

$$\text{MPS} = 1 - \text{MPC} = 1 - 0.6 = 0.4$$

(ii) $S = -C + (1 - b)Y$

$$S = -100 + 0.4Y$$

Example 23. Estimate the value of Aggregate Demand in an economy if:

{CBSE, Sample Paper 2019}

(a) Autonomous Investment (I) = 100 crores

(b) Marginal Propensity to Save = 0.2

(c) Level of Income (Y) = 4,000 crores

(d) Autonomous Consumption Expenditure (\bar{C}) = 50 crores

Solution :

Aggregate Demand (AD) function is given as: $AD = C + I$

$$\text{or, } AD = \{ \bar{C} + b(Y) \} + I$$

$$\bar{C} = 50 \text{ (Given)}$$

$$b \text{ or MPC} = 1 - \text{MPS} = 1 - 0.2 = 0.8$$

Substituting the values of \bar{C} and b in AD function, we get:

$$AD = \{50 + 0.8(4,000)\} + 100 = ₹ 3,350 \text{ crores}$$

$$\text{Aggregate Demand} = ₹ 3,350 \text{ crores}$$

Q.1. Estimate the value of ex-ante AD, when autonomous investment and consumption expenditure (A) is ₹ 50 crores and MPS is 0.2 and level of income is ₹ 300 crores. {CBSE. Sample Paper 2018}

Ans. MPC = 1 - MPS = 1 - 0.2 = 0.8

In a two-sector model, AD is a function of Consumption (C) and Investment (I).

It means, AD = C + I

Also, Consumption Function is given by: C = \bar{C} + b(Y)

Where, c = Autonomous Consumption; b = MPC; and Y = Income.

Investments are assumed to be autonomous investments, i.e. I = \bar{I}

It means, AD = $\bar{c} + b(Y) + \bar{I}$ or AD = $\bar{c} + \bar{I} + b(Y)$

AD = A + bY [⊕ Total Autonomous Expenditure (A) = $\bar{C} + \bar{I}$]

$$AD = 50 + 0.8 (300)$$

$$AD = ₹ 290 \text{ Crores}$$

Practicals on Investment Multiplier

Example 1. Calculate multiplier if MPC is: (i) 0.75; (ii) 0.90

Solution:

$$(i) \text{ Multiplier (k)} = \frac{1}{1-MPC} = \frac{1}{1-0.75} = \frac{1}{1-0.25} = 4$$

$$(ii) \text{ Multiplier (k)} = \frac{1}{1-MPC} = \frac{1}{1-0.90} = \frac{1}{1-0.10} = 10$$

Example 2. Calculate the value of multiplier if the MPS is: (a) 0.40; (b) Equal to

MPC

Solution:

$$(a) \text{ Multiplier (k)} = \frac{1}{1-MPC} = \frac{1}{0.40} = 2.5$$

$$(b) \text{ MPS} = \text{MPC, then MPS} = 0.5 \quad [\text{© } MPS + MPC = 1]$$

$$(b) \text{ Multiplier (k)} = \frac{1}{MPC} = \frac{1}{0.5} = 2$$

Example 3. In an economy, income generated is four times the increase in investment expenditure. Calculate the values of MPC and MPS.

Solution:

$$\text{Multiplier} = 4$$

{As increase in income (ΔY) is 4 times the increase in investment ΔI }

$$\text{(a) Multiplier (k)} = \frac{1}{1 - \text{MPC}}$$

$$4 = \frac{1}{1 - \text{MPC}}$$

$$1 - \text{MPC} = \frac{1}{4}$$

$$\text{MPC} = 0.75$$

$$\text{MPS} = 1 - \text{MPC} = 1 - 0.75$$

$$\text{MPS} = 0.25$$

Ans. 0.75; MPS = 0.25

Example 4. In an economy, the marginal propensity to consume is 0.8. If the investment increases by ₹ 1,000 crores, calculate the total increase in income.

Solution:

$$\text{Multiplier (k)} = \frac{1}{1 - \text{MPC}} = \frac{1}{1 - 0.80} = \frac{1}{1 - 0.20} = 5$$

$$\text{We also know k:} = \frac{\text{Change in Income } (\Delta Y)}{\text{Change in Investment } (\Delta I)}$$

Given: Change in Investment (ΔI) = 1,000 crores

$$\text{i.e., } 5 = \frac{\text{Change in Income } (\Delta Y)}{1,000}$$

So, Change in Income (ΔY) = 5,000 crores

Ans. Total increase in income = 5,000 crores

Example 5. In an economy, 60% of increased income is spent on consumption. If ₹ 4 crores are invested in a project, find out the increase in income and saving.

Solution:

Given MPC = 0.6

(as 60% of increased income is spent on consumption)

$$\text{Multiplier (k)} = \frac{1}{1 - \text{MPC}} = \frac{1}{1 - 0.6} = 2.5$$

$$\text{We also know k:} = \frac{\text{Change in Income } (\Delta Y)}{\text{Change in Investment } (\Delta I)}$$

Given: Change in Investment (ΔI) = ₹ 4 crores

$$\text{i.e., } 2.5 = \frac{\text{Change in Income } (\Delta Y)}{4}$$

So, Change in Income (ΔI) = ₹ 10 crores

$$\text{MPS} = 1 - 0.60 = 0.40 \quad [\ominus \text{MPS} = 1 - \text{MPC}]$$

$$\text{MPS} = \frac{\text{Change in Saving } (\Delta S)}{\text{Change in Income } (\Delta Y)}$$

$$\text{Change in Saving } (\Delta S) = (\Delta Y) \times \text{MPS} = 10 \times 0.4 = ₹ 4 \text{ crores}$$

Ans. Increase in income = ₹ 10 crores; Increase in saving = ₹ 4 crores

Example 6. In an economy, the actual level of income is ₹ 500 crores, whereas, the full employment level of income is ₹ 800 crores. If one-fourth of additional income is saved, calculate increase in investment required to achieve full employment level of income.

Given MPC = 0.6

(as one-fourth or 25% of additional income is saved)

$$\text{Multiplier (k)} = \frac{1}{\text{MPS}} = \frac{1}{0.25} = 4$$

$$\text{We also know k:} = \frac{\text{Change in Income } (\Delta Y)}{\text{Change in Investment } (\Delta I)}$$

Given: Change in Investment (ΔY) = 800 - 500 = 300 crores

$$\text{i.e., } 4 = \frac{300}{\text{Change in Investment } (\Delta I)}$$

Hence, Change in Income (ΔI) = ₹ 75 crores

Ans. Increase in investment required = ₹ 75 crores

Example 7. In an economy, the equilibrium level of income falls short by ₹ 500 crores. Calculate the additional investment needed to achieve the equilibrium level of income, if 80% of increased income is spent on consumption.

Solution:

Given : MPC = 0.80

(as 80% of additional income is spent on consumption)

$$\text{Multiplier (k)} = \frac{1}{1-MPC} = \frac{1}{1-0.80} = \frac{1}{0.20} = 5$$

$$\text{We also know : } k = \frac{\text{Change in Income } (\Delta Y)}{\text{Change in Investment } (\Delta I)}$$

Given: Increase in Income (ΔY) required = ₹ 500 crores

$$\text{i.e., } 5 = \frac{500}{\text{Change in Investment } (\Delta I)}$$

Hence, Change in Investment (ΔI) = ₹ 100 crores

Ans. Additional Investment required = ₹ 100 crores

Example 8. In an economy, the equilibrium level of income is ₹ 12,000 crores. The ratio of marginal propensity to consume and marginal propensity to save is 3:1. Calculate the additional investment needed to reach a new equilibrium level of income ₹ 20,00 crore.

{CBSE, All India 2010}

Solution:

Ratio of 3:1 between marginal propensity to consume (MPC) and marginal

propensity to save (MPS) signifies: $MPC = \frac{3}{4}$ or 0.75 and $MPS = \frac{1}{4}$ or 0.25.

$$\text{Multiplier (k)} = \frac{\text{Change in Income } (\Delta Y)}{\text{Change in Investment } (\Delta I)}$$

Given: Change in Income $(\Delta Y) = 20,000 - 12,000 = ₹ 8,000$ crores

$$\text{i.e., } 4 = \frac{8,000}{\text{Change in Investment } (\Delta I)}$$

Given : Change in Income $(\Delta I) = ₹ 2,000$ crores

Ans. Additional Investment needed is ₹ 2,000 crores

Example 9. Calculate MPS and Multiplier (k) from the following data:

Income (₹)	100	200
Saving (₹)	40	100

Solution:

Income (Y) (₹)	Saving (S) (₹)	Change in Saving (ΔS) (₹)	Change in Income (ΔY) (₹)	MPS ($\Delta S \div \Delta Y$)	Multiple (k) $1 \div \text{MPS}$
100	40	-	-	-	-

200	100	60	100	0.60	1.67(=1÷0.60)
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Ans. MPS = 0.60; Multiplier (k) = 1.67

Example 10. In an economy, marginal propensity to consume is 0.75. If investment expenditure is increased by ₹ 500 crores, calculate the total increase in income and consumption expenditure. {CBSE, Delhi 2004}

Solution:

$$\text{Multiplier (k)} = \frac{1}{1-MPC} = \frac{1}{1-0.75} = \frac{1}{0.25} = 4$$

$$\text{We also know: } k = \frac{\text{Change in income}(\Delta Y)}{\text{Change in Investment}(\Delta I)}$$

$$4 = \frac{\text{Change in Income}(\Delta Y)}{500}$$

So, Change in Income (ΔY) = ₹ 20,000 crores

$$\text{MPC} = \frac{\text{Change in Consumption}(\Delta C)}{\text{Change in Income}(\Delta C)}$$

$$0.75 = \frac{\text{Change in Consumption}(\Delta C)}{2,000}$$

So, Change in Consumption (ΔC) = ₹ 1,500 crores

Ans. Total increase in income = ₹ 2,000 crores; Total increase in Consumption

Expenditure = ₹ 1,500 crores

Example 11. An increase of ₹ 200 crore in investment leads to a rise in national income by ₹ 1000 crores. Find out marginal propensity to consume.

{CBSE, Delhi 2007}

$$\text{Multiplier (k)} = \frac{\text{Change in Income}(\Delta Y)}{\text{Change in Investment}(\Delta I)} = \frac{1,000}{200} = 5$$

$$\text{We know, Multiplier (k)} = \frac{1}{1 - MPC}$$

$$5 = \frac{1}{1 - MPC}$$

$$1 = MPC \frac{1}{5}$$

$$\text{Hence, } MPC = 1 - 0.20 = 0.80$$

Ans. Marginal Propensity to Consume (MPC) = 0.80

Example 12. As a result of increase in investment by ₹ 125 crores, national income increase by ₹ 500 crores. Calculate marginal propensity to consume.

{CBSE, Delhi 2008 (I)}

Solution :

$$\text{Multiple (k)} = \frac{\text{Change in income}(\Delta Y)}{\text{Change in Investment}(\Delta I)} = \frac{500}{125} = 4$$

We know, Multiplier (k) = $\frac{1}{1-MPC}$

$$4 = \frac{1}{1-MPC}$$

$$1-MPC = \frac{1}{4}$$

$$MPC = 1 - 0.25 = 0.75$$

Ans. Marginal Propensity to Consume (MPC) = 0.75

Example 13. In an economy, investment is increased by ₹ 300 crore. If marginal propensity to consume is $\frac{2}{3}$, calculate increase in national income.

{CBSE, Delhi 2016 (I)}

Solution:

$$\text{Multiplier (k)} = \frac{1}{1-MPC} = \frac{1}{1-\frac{2}{3}} = \frac{1}{0.33} = 3$$

$$\text{We also know: } k = \frac{\text{Change in Income } (\Delta Y)}{\text{Change in Investment } (\Delta I)}$$

$$3 = \frac{\text{Change in Income } (\Delta Y)}{300}$$

Hence, Increase in National Income (ΔC) = ₹ 900 crores

Ans. Increase in National Income = ₹ 900 crores

Example 14. If marginal propensity to consume is 0.9, what is the value of multiplier?

How much investment is needed, if national income increase by ₹ 5,000 crores?

{CBSE, Delhi 2008 (III)}

Solution:

$$\text{Multiplier (k)} = \frac{1}{1-MPC} = \frac{1}{1-0.90} = \frac{1}{0.10} = 10$$

$$\text{We also know: } k = \frac{\text{Change in Income } (\Delta Y)}{\text{Change in Investment } (\Delta I)}$$

$$10 = \frac{5,000}{\text{Change in Investment } (\Delta I)}$$

Hence, Change in Investment $(\Delta I) = ₹ 500$ crores

Ans. Multiplier (k) = 10; Increase in investment = ₹ 500 crores

Example 15. In an economy, the entire increase in income is spent on consumption.

What will be the value of multiplier?

Solution:

When entire increase in income is spent on consumption, then: $\Delta C = \Delta Y$, i.e.

$$\text{MPC} = 1$$

$$\text{We know: Multiplier (k)} = \frac{1}{1-MPC}$$

$$\text{When MPC} = 1, \text{ then: } k = \frac{1}{1-1} = \frac{1}{0} = \infty$$

(as any number divided by 0 is ∞)

Example 16. In an economy 75 percent of the increase in income is spent on consumption. Investment is increased by ₹ 1,000 crore. Calculate: (a) total increase in income; (b) total increase in consumption expenditure.

{CBSE, Delhi 2010}

Solution:

Given : $MPC = 0.75$

(as 75% of increase in income is spent on consumption)

$$\text{Multiplier (k)} = \frac{1}{1-MPC} = \frac{1}{1-0.75} = \frac{1}{0.25} = 4$$

$$\text{When also know: } k = \frac{\text{Change in Income } (\Delta Y)}{\text{Change in Investment } (\Delta I)}$$

$$4 = \frac{\text{Change in Income } (\Delta)}{1,000}$$

So, Change in Income (ΔY) = ₹ 3,000 crores

Ans. Total increase in income = ₹ 4,000 crores; Total increase in Consumption Expenditure = ₹ 3,000 crores

Q.1. Distinguish between inflationary gap and deflationary gap. Show deflationary gap on a diagram. Can this gap exist at equilibrium level of income? Explain.

{CBSE, Delhi, 2004}

Ans.

Basis	Inflationary Gap	Deflationary Gap
Meaning	It refers to the gap by which actual AD exceeds AS at level of full employment.	It refers to the gap by which actual AD falls short of AS at level of full employment.
Impact on Output and Employment	It does not affect the output and employment level as economy is already operating at full employment level.	It leads to fall in output and employment due to shortage of aggregate demand.
Impact on Price	It leads to inflation, i.e. it result in rise in general price level.	It leads to deflation, i.e. it results in fall in general price level.
Diagram	In Fig. 9.1., EF is termed as the inflationary gap.	In Fig. 9.2, EG is termed as the deflationary gap.

For diagrammatic explanation of deflationary gap, refer Fig. 9.2.

Yes, deflationary gap can exist at equilibrium level of income. According to Keynes, equilibrium level of income indicates mere equality between AD and AS, regardless of whether the equilibrium is at full employment or underemployment of resources.

- If the resources are employed to their full limit, i.e. equilibrium is at full employment level, the deflationary gap cannot exist at equilibrium level of income.**
- However, if resources are not fully employed, i.e. it is an underemployment equilibrium, then deflationary gap can exist at equilibrium level of income.**

Q. 2. State the treatment of following measures by central bank during excess demand: (i) Bank rate (ii) Margin requirements; (iii) Open market operation.

Ans. (i) Bank rate will be increased.

(ii) Margin requirements will also be increased.

(iii) Central bank will start selling the securities in the open market.

Q. 3. Name the monetary measure indicated in the following statements. Also indicate, whether the following measures will be adopted during excess demand or deficient demand.

(i) RBI starts selling Government securities to the public.

(ii) Instead of 80%, now 90% of the security amount will be given as loan.

(iii) It resulted in increase in interest rate charged by commercial bank from the

borrowers.

(iv) RBI advised SBI to stop advertising for home loans in order to discourage lending.

(v) Central bank reduces the amount of time and demand deposits required to be kept as reserves

(vi) RBI instructed not to advance loans to people with income above ? 5 lakhs per annum.

Ans. (i) Open Market Operation

(ii) Margin Requirements

(iii) Bank Rate

(iv) Moral Suasion

(v) Legal reserve requirements

(vi) Selective Credit Controls

Measures adopted during Excess Demand will be: (i), (iii), (iv) and (vi). Measures adopted during Deficient Demand will be: (ii) and (v).

Q. 4. 'An excess of aggregate demand over aggregate supply always implies a situation of inflationary gap.' Defend or refute. *Ans. The given statement is refuted. Excess of aggregate demand (AD) over aggregate supply (AS) will lead to inflationary gap only when*

AD is more than AS corresponding to full employment level of output. If AD is more than AS before that level, then it will not lead to inflationary gap.

Q.5. Distinguish between full employment equilibrium and underemployment equilibrium.

Ans.

Basis	Inflationary Gap	Deflationary Gap
Meaning	It refers to a situation when $AD=AS$ and all those who are willing and able to work at the existing wage rate, get work without any undue difficulty.	If refers to a situation when $AD=AS$, but all those who are willing and able to work at the existing wage rate, do not get work.
Impact on Real Output	At this equilibrium level, real output reaches its maximum point.	At this equilibrium level, output does not reach its maximum.
Inflationary Gap	Any excess of A over AS corresponding to full employment equilibrium leads to	Any excess of AD over AS beyond underemployment equilibrium does not

	inflationary gap.	lead to inflationary gap.
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Q. 6. Discuss the situation when aggregate demand is more than aggregate supply at full employment income level. {CBSE, Delhi2018}

Ans. When Aggregate Demand is greater than Aggregate Supply at full employment, such a situation is known as Excess Demand or Inflationary Gap. It is called inflationary because this leads to a rise in general price level of the economy.

TRUE AND FALSE

Are the following statements true or false? Give reasons.

1. To check inflation, the central bank should reduce the cash reserve ratio.

False. The central bank should increase the cash reserve ratio in order to check inflation.

2. To correct the deflationary gap, money supply should be decreased.

False. Money supply should be increased to raise the level of aggregate demand.

3. Equilibrium beyond the full employment level does not lead to rise in output level.

True. The level of output will not rise as economy is already at full employment level and there is no idle capacity in the economy.

6. A reduction in government spending leads to fall in the income and purchasing power of the people.

True. Reduction in government spending will reduce the level of aggregate demand, which will lead to fall in the income and purchasing power of the people. (The extent of fall in the income and purchasing power depends on the size of multiplier)

7. Sale of government securities by the central bank in the open market is an appropriate policy to check depression in the economy.

False. To check depression, the central bank should purchase government securities from the open market.

8. Deficiency in demand has no effect on the country's output and prices.

False. Deficiency in demand leads to fall in country's output and prices.

9. An increase in the bank rate makes borrowing costlier for the general public.

True. Increase in bank rate forces the commercial banks to increase their lending rates, which makes borrowings costlier for the general public.

The deflationary gap can be corrected by raising the level of aggregate demand.

True. Because deflationary gap occurs when aggregate demand falls short of aggregate supply.

9. Excess demand generates greater employment opportunities in the economy.

False. Excess demand is a situation when there is no possibility of greater employment opportunities economy is already at full employment level.

10. Increase in margin requirements helps to control the situation of deficient demand.

False. Margin requirements needs to be reduced to enhance the credit creating power of commercial ba* and to correct the deficient demand.

11. Inflationary gap exists when aggregate demand is greater than aggregate supply.

{CBSE, Delhi Comptt. 2016}

False. Inflationary gap exists when Aggregate Demand is greater than Aggregate Supply at full employ mi

12. Deflationary gap exists when aggregate demand is greater than aggregate supply at full employ level. {CBSE, Sample Paper 2018}

False. Inflationary Gap exists when actual Aggregate Demand is more than Aggregate Supply correspond to full employment level of output in the economy.

Note: As per CBSE guidelines, no marks will be given if reason to the answer is not explained.

REVISION EXERCISE

Multiple Choice Questions (MCQs)

1. ____ is exercised through discussions, letters and speeches to banks.
- | | |
|-------------------------|-------------------------------|
| (a) Moral suasion | (b) Selective Credit Controls |
| (c) Margin Requirements | (d) Open Market Operations |

2. Which of the following is not the reason for excess demand?
- (a) Fall in the propensity to consume (b) Reduction in taxes
(c) Increase in investments (d) Deficit Financing
3. Increase in cash reserve ratio will lead to:
- (a) Fall in Aggregate Demand (b) Rise in Aggregate Demand
(c) No change in Aggregate Demand (d) None of these
4. The gap by which actual aggregate demand exceeds the aggregate demand required to establish employment equilibrium is known as
- (a) Deficient Demand (b) Deflationary gap
(c) Inflationary Gap (d) Excess Demand
5. "Change in Government Spending" is a part of:
- (a) Monetary Policy (b) Fiscal Policy
(c) Either (a) or (b) (d) Neither (a) nor (b)
6. ____ refers to the situation when aggregate supply falls short of aggregate demand correspondi to full employment level of output in the economy, _____
- (a) Deficient Demand ■ (b) Excess Demand
(c) Inflationary Gap (d) Deflationary gap
7. Excess demand leads to:
- (a) Increase in the level of employment
(b) Decrease in the level of employment
(c) No change in the level of employment (d) None of these
8. Deficient Demand indicates:
- (a) Under employment equilibrium (b) Over Full employment equilibrium
(c) Full employment equilibrium (d) None of these
9. Monetary Policy is the policy of ____ to control money supply and credit creation in the economy.
- (a) Central Government (b) Central Bank

(c) Both (a) and (b) (d) None of these

10. During excess demand, central bank_____ the margin.

(a) Decreases (b) Increases
(c) Removes (d) Does not change

11. In the following diagram, the gap EF is termed as;

(a) Inflationary Gap (b) Deflationary Gap
(c) Either (a) or (b) (d) Neither (a) nor (b)

12. If an economy is to control recession like most of the Euro-Zone nations, which of the following can be appropriate:

{CBSE, Sample Paper 2016}

(a) Reducing Repo Rate (b) Reducing CRR
(c) Both (a) and (b) (d) None of (a) and (b)

13. Aggregate demand can be increased by : (choose the correct alternative)

{CBSE, Delhi 2017}

(a) Increasing bank me
(b) selling government securities by Reserve Bank of India
(c) increasing cash reserve ratio
(d) none of the above

Ans. 1. (a); 2. (a); 3. (a); 4. (c); 5. (b); 6. (b); 7. (c); 8. (a); 9. (b); 10. (b); 11. (a); 12. (c);
13. (d)

Very Short Answer Type Questions (1 Mark each)

Q.1. Name the situation under which planned aggregate expenditure exceeds the equilibrium level of expenditure.

Ans. *Excess demand*

Q.2. What is meant by excess demand in Macroeconomics?

{CBSE, Delhi 2009, All India 2014 (III)}

Ans. Excess demand refers to the situation when aggregate demand is more than the aggregate supply corresponding to the full employment level in the economy,

Q.3. Define inflationary gap. {CBSE, Delhi2008, All India 2014 (I)}

Ans. Inflationary gap refers to the gap by which actual aggregate demand exceeds the aggregate demand required to establish full employment equilibrium.

Q.4 What does inflationary gap measure?

Ans. The inflationary gap measures the quantum of excess demand.

Q.5. Name the situation under which aggregate demand is insufficient to eliminate involuntary unemployment.

Ans. Deficient demand.

Q.6. Give meaning of 'deficient demand' in macroeconomics.

{CBSE, Foreign 2014 (I)}

Ans. Deficient demand refers to the situation when aggregate demand is less than aggregate supply corresponding to the full employment level in the economy.

Q. 7. Define deflationary gap.

{CBSE, Delhi 2008, All India 2014 (II)}

OR

Give the meaning of deflationary gap. {CBSE, Delhi2010}

Ans. Deflationary gap refers to the gap by which actual aggregate demand falls short of the aggregate demand required to establish full employment equilibrium.

Q. 8. What is the impact of excess demand and deficient demand on the price level?

Ans. Excess demand raises the general price level (inflation), whereas, deficient demand reduces it (deflation)

Q.9. State the impact of excess demand on production and employment.

Ans. Production and employment remain unchanged during excess demand as the economy is already operating at the full employment level.

Q. 10. What is the impact of deficient demand on production and employment?

Ans. Production and employment will decrease due to shortage of aggregate demand.

Q.11. When does the situation of deficient demand arise in an economy?

Ans. When actual aggregate demand falls short of the aggregate demand required for full employ equilibrium, it gives rise to deficient demand.

Q. 12. State two measures by which a central bank can attempt to reduce the inflationary gap.

Ans. (i) Increase in bank rate, (ii) Sale of government securities.

Q. 13. How does the instrument of open market operations help during deficient demand?

Ans. During deficient demand, the central bank starts purchasing securities from the open market. It increase the money supply and enhances the purchasing power capacity of the economy.

Q.14. What happens when the credit availability is restricted and credit made costlier?

Ans. Limited and costly credit leads to contraction of credit and it has a deflationary impact on the economy

Q. 15. What will be the impact of increase in cash reserve ratio on the aggregate demand?

Ans. Aggregate demand will fall.

Q. 16. What is the impact of decrease in margin requirements? *Ans. Decrease in margin requirements encourages borrowings and raises the aggregate demand.*

Short Answer Type Questions (3-4 Marks each)

1. Does the situation of excess demand arise? How do you measure it? Show it with the help of a diagram.

2. What is the impact of excess demand on output, employment and prices?

Explain the meaning of inflationary gap with the help of a diagram.

{CBSE, Delhi 2005}

OR

Explain the meaning and implications of inflationary gap.

6. Explain the meaning of deflationary gap with the help of a diagram.

{CBSE, Delhi 2005.}

7. Explain the situation of deficient demand in an economy with the help of a diagram.

{CBSE, Delhi 2005}

6. Explain the role of bank rate in dealing with the problem of deficient demand.

{CBSE, Delhi Comptt. 2015;}

9. How can a central bank control excess demand in an economy by making changes in the legal reserve requirements?

10. Explain any two measures to remedy the problem of excess demand in an economy.

9. "Decrease in the money supply helps in controlling the situation of excess demand in an economy". Comment.

12. Would you advocate expansion or contraction of money supply during excess demand?

13. How can increase in the government expenditure solve the problem of deficient demand?

OR

Explain how can government spending be helpful in removing deficient demand.

{CBSE, Foreign 2016}

12. Discuss the role of government in correcting excess demand with the help of a diagram.

13. Explain the role of margin requirements in dealing with the problem of excess demand.

{CBSE, Delhi Comptt. 2018}

14. What role does government expenditure play to control deficient demand in a three-sector economy? Use diagram.

15. Explain the role of "open market operations" in controlling the inflationary gap.

{CBSE, Sample Paper 2014}

16. How does increase in taxes help to control the situation of excess demand?

OR

Explain the role of taxation in reducing excess demand.

{CBSE, Delhi 2016}

17. What is meant by Repo Rate? How does the Central Bank use this measure to control inflationary conditions in an economy?

{CBSE, Sample Paper 2016}

18. Explain how controlling money supply is helpful in reducing excess demand.

{CBSE, All India 2016}

19. What is meant by Margin Requirement? How does the Central Bank use this measure to control deflationary conditions in an economy?

{CBSE, Sample Paper 2016}

20. What is meant by inflationary gap? State three measures to reduce this gap.

Long Answer Type Questions (6 Marks each)

4. Explain the concept of inflationary gap with the help of a diagram. What is its impact on output, employment and price level in the economy?

5. Explain the problem of 'excess demand' in an economy with the help of a diagram. Explain the role of bank rate in correcting it.

{CBSE, Delhi 2007}

6. Explain the concept of 'excess demand' in macroeconomics. Also explain the role of 'open market operation' in correcting it.

{CBSE, Delhi 2012}

OR

What is 'excess demand' in macroeconomics? Show the same in a diagram. Explain the role of 'open market operations' in reducing it.

{CBSE, All India Comptt. 2013}

21. Discuss, in brief, the meanings of deficient demand and deflationary gap with the help of a

diagram. Also, discuss the effect of deficient demand on output, employment and price level.

22.Explain the role of the following in correcting 'deficient demand' in an economy: (i) Open market operations, (ii) Bank rate.

{CBSE, Delhi 2011}

23.Explain the concept of excess demand and inflationary gap with the help of diagram. How can it be corrected by the government?

24.How does money supply help in controlling the situation of deficient demand?

25.Explain the role of the following in correcting 'excess demand' in an economy: (i) Bank rate, (ii) Open market operations.

{CBSE, Delhi2011}

26.Explain the concept of 'deflationary gap'. Also explain the role of 'margin requirements' in reducing it.

27. Explain the concept of 'deficient demand' in macroeconomics. Also explain the role of Bank Rate in correcting its {CBSE, Delhi 2012}

28.Explain the concept of 'inflationary app'. Also explain the role of 'legal reserves' in reducing it. {CBSE, All India 2012}

29.Explain the meaning of under-employment equilibrium. Explain two measures by which full employment equilibrium can be reached. {CBSE, All India 2013}

30.Distinguish between inflationary gap and deflationary gap. State two measure by which these can be corrected. {CBSE, All India 2013 (II)}

31.Explain the meaning of inflationary gap and deflationary gap with the help of diagram.

32.Explain the meaning of inflationary gap and deflationary gap. Explain any one measure by which these gaps can be reduced. {CBSE, Delhi Compt.. 2013}

33.Explain the concept of Inflationary Gap. Explain the role of Repo Rate in reducing this gap.

34.What is 'excess demand'? Explain the role of 'Reverse Repo Rate' in removing it.

{CBSE, All India 2015}

35. What is 'inflationary gap'? Explain the role of Cash Reserve Ratio in removing this gap.

{CBSE, Foreign 2015}

36. How does change in taxes help to control the situation of excess and deficient demand?

37. Explain the situation of deficient demand in an economy. Also explain the role of Repo Rate in correcting this.

{CBSE, All India Comptt. 2016}

Government Budget and The Economy

Meaning of govt. budget

Govt. budget is an annual statement, showing item wise estimates of receipts and expenditure during a Fiscal year.

Objectives of govt. budget

Govt. prepares the for fulfilling certain objectives. These objectives are the direct outcome of government's economic, social and political policies. The various objectives of government budget are:

- 6) **Reallocation of Resources:** through the budgetary policy, govt. aims to reallocate resources in according with the economic (profit maximization) and social (public welfare) priorities of the country. For example, govt. discourages the production of harmful consumption goods (like liquor, cigarettes etc.) through heavy taxes and encourages the use of 'khadi products' by providing subsidies.
- 7) **Redistribution activities:** economic inequalities is an inherent part of every economic system. Govt. aims to reduce such inequalities of income and wealth, through its budgetary policy. Fiscal instrument like taxation, subsidies and expenditure on social security, public works , etc. are used by the govt. to achieve this objective.
- 8) **Management of Public Enterprises:** there are large nos. of public sector industries (especially natural monopolies), which are established and managed for social welfare of the public. Budget is prepare with the objective of making various provisions for managing such enterprises and providing them financial help.
- 9) **Stabilizing economic activities:** Govt. budget is used to prevent business fluctuation of inflation or deflation and to maintain economic stability. The govt. aims to control the difference phases of business fluctuations through its budgetary policy. Policies of surplus budget during inflation and deficit budget during deflation are adopted to achieve stability in the economy.

10) **Economic growth:** economic growth has been the main objective of every economy at all times. The growth rate of a country depends on rate of saving and investment. For this purpose, budgetary policy aims to mobilize sufficient resources for investment in the public sector. Therefore, the govt. makes various provision in the budget to raise overall rate of savings and investments in the economy.

Components of Budget

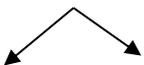
- 3) **Revenue Budget:** It deals with the revenue aspect of the govt. budget. It explains how revenue is generated or collected by the govt. and how it is allocated among various expenditure hands. Revenue budget has two part:
- iii. revenue receipts
 - iv. revenue expenditure
- 4) **Capital Budget:** It deals with the capital aspect of the govt. budget and it consists of:
- iii. Capital receipts
 - iv. Capital expenditure

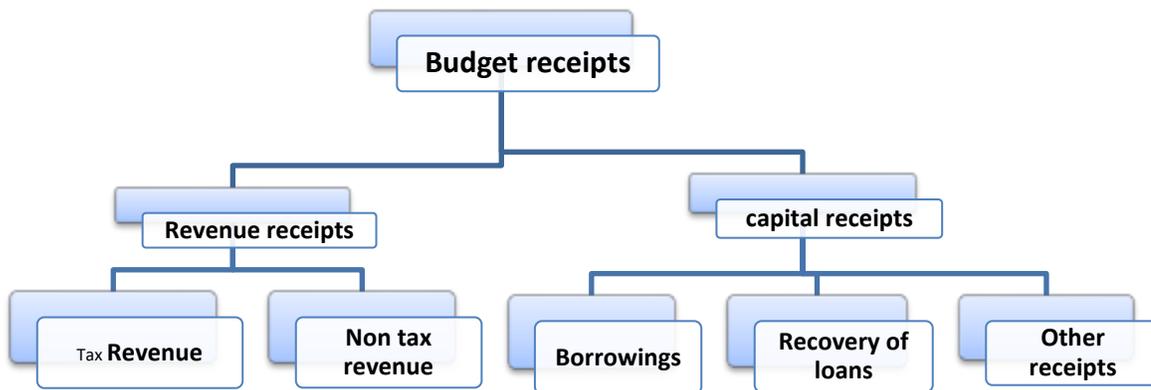
The components of budget can also be categories according to receipts and expenditure. On the basis, two broad components are:

- iii. Budget receipts
- iv. Budget expenditures

Budget Receipts

Budget receipts refer to the estimated money receipts of the government from all sources during a given fiscal year. Budget receipts may be further classified as (i) revenue receipts, (ii) capital receipts.





REVENUE

RECEIPTS

Revenue receipts refer to those receipts which neither create any liability nor cause any reduction in the assets of the government.

Two sources of revenue receipts: They are (a) Tax revenue (b) Non-tax revenue

Tax Revenue: It refers to sum of total of receipts from taxes and other duties imposed by the government. Tax is a compulsory made by people and companies to the government without reference to any direct benefit in return.

Tax revenue can be further classified as:

- iii. Direct taxes
- iv. Indirect taxes

Direct taxes

Direct taxes refer to taxes that are imposed on poverty and income of individuals and companies and are paid direct by them to the government. Examples of direct taxes are: Income taxes, Interest taxes, Wealth tax, death duty. Capital gains tax etc.

Indirect taxes

Indirect taxes refer to those taxes which affect the income of individual and companies through their consumption expenditure. Examples of indirect taxes: Sales tax, Service tax, VAT, Entertainment tax, Excise duty, custom duty, etc.

Comparison between direct taxes and indirect taxes

Basis	Direct taxes	Indirect taxes
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Impact	Direct taxes are levied on individual and companies.	Indirect taxes are levied on goods and services.
Shift of burden	The burden of a direct tax cannot be satisfied be shifted, i.e. impact and incidence is on the same person.	The burden of an indirect tax can be shifted, i.e. impact and incidence is on different persons.
Nature	They are generally progressive in nature.	They are generally proportional in nature.

Non-tax revenue

Non-tax revenue refers to receipts of the government from all sources other than those of tax receipts. The main sources of non-tax revenue are:

- x. Interest
- xi. Profits and dividends
- xii. Fees
- xiii. License fee
- xiv. Fines and penalties
- xv. Escheats: (it refers to claim of the government on the property of a person who dies without leaving behind any legal heir or a will)
- xvi. Gifts and grains
- xvii. Forfeitures: (these are in the form of penalties which are imposed by the courts for non-compliance of orders or non-fulfillment of contracts etc.)
- xviii. Special assessment: (It refers to the payment made by owners of those properties whose value has appreciated due to development activities of the government. For example, if value of a property near a Metro station has increased, then a part of development expenditure is recovered from owners of such property in the form of special assessment).

CAPITAL RECEIPTS

It refers to those receipts which either create a liability or cause a reduction in its assets.

Sources of capital Receipts

Capital receipts are broadly classified into three groups:

- (iii) Borrowings : Government borrow funds from : (a) Open market (public)

(b) Reserve bank of India,(c) Foreign government,(iv) International institutions (like world bank, IMF), Borrowings are capital receipts as they create a liability for the government.

(ii) Recovery of loans : Government grants various loans to state government or union territories. Recovery of such loans is a capital receipts as it reduces the assets of the government.

(iv) Other Receipts: These include;

(c) Disinvestment: It refers to the act of selling a part or the whole of shares of selected public sector undertakings held by the government. They are termed as capital receipts as they reduce the assets of the government. Government holds ownership in various PSU's in the form of equity shares. When the government sells a part or whole of its shares, it leads to transfer of ownership of OSU's to the private enterprises.

(d) Small savings: It refers to funds raised from the public in the form of Post Office deposits, National Saving Certificates, Kisan Vikas Patras etc. They are treated as capital receipts as they lead to an increase in liability.

BUDGET EXPENDITURE

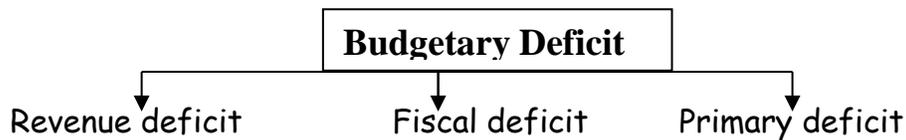
It refers to the estimated expenditure of the government during a given fiscal year. The budget expenditure can be broadly categorized as:

(iii) Revenue expenditure : it refers to the expenditure which neither creates any asset nor causes reduction in any liability of the government. For e.g.,payment of salaries, pensions, interest, expenditure on administrative services, defence services, health services, grants to state etc.

(iv) Capital Expenditure : It refers to the expenditure which neither creates an assets or causes a reduction in the liabilities of the government.For e.g., loans to states and union territories, expenditure on building roads, flyovers, factories, purchase of machinery etc.

MEASURES OF GOVERNMENT DEFICIT

It is defined as the excess of total estimated expenditure over total estimated revenue.



REVENUE DEFICIT

Revenue deficit refers to excess of revenue expenditure over revenue receipts during the given fiscal year.

Revenue Deficit = Revenue Expenditure - Revenue Receipts

Revenue deficit signifies that revenue receipts fall short of the revenue expenditures. The government's own revenue is insufficient to meet the expenditures on normal functioning of government departments and provisions for various services.

Implication of revenue deficit:

- (v) Revenue deficit indicates the inability of the government to meet its regular and recurring expenditure in the proposed budget.
- (vi) It implies that government is dissaving, i.e. government is using up savings of other sector of the economy to finance its consumption expenditure.
- (vii) It also implies that the government has to make up this deficit from capital receipts, i.e., through borrowing or disinvestments. It means, revenue deficit either leads to an increase in liabilities in the form of borrowings or reduces the assets through disinvestment.
- (viii) A high revenue deficit gives a warning signal to the government to either curtail its expenditure or increase its revenue.

Measure to reduce Revenue Deficit

- (iii) **Reduce expenditure:** Government should take serious steps to reduce its expenditure and avoid unproductive or unnecessary expenditure.
- (iv) **Increase revenue:** Government should increase its receipts from various sources of tax and non-tax revenue.

Fiscal deficit

Fiscal deficit refers to the excess of total expenditure over total receipts (excluding borrowing) during the fiscal year.

Fiscal Deficit = total expenditure - total receipts excluding borrowings

Implications of fiscal deficit

- (v) **Debt. Trap:** Fiscal deficit indicates the total borrowing requirements of the government. Borrowing not only repayment of principal amount, but also require payment of interest. Interest payments increase the revenue expenditure, which

leads to revenue deficit, wherein government takes more loans to repay the earlier loans. As a result, country is caught in a debt trap.

- (vi) **Inflation:** Government mainly borrows from Reserve Bank of India (RBI) to meet its fiscal deficit. RBI prints new currency to meet deficit requirements. It increases the money supply in the economy and creates inflationary pressure.
- (vii) **Foreign dependence:** government also borrows from rest of the world, which raises its dependence on the countries.
- (viii) **Hampers the future growth:** borrowings increase the financial burden for future generations. It adversely affects the future growth and development prospects of the country.

Comparison between Fiscal Deficit and Revenue Deficit

Basis	Fiscal Deficit	Revenue Deficit
Meaning	It shows the excess of total expenditure over total receipts excluding borrowings.	It shows the excess of revenue expenditure over the revenue receipts.
Indicator	It measures the total borrowing requirements of the government.	It indicates inability of the government to meet its regular and recurring expenditure.

Sources of Financing Fiscal Deficit

Government has to look out for different options to finance the fiscal deficit. The main two sources are:

- (iii) Borrowings
- (iv) Deficit Financing

Primary deficit

Primary deficit refers to the difference between fiscal deficit of the current year and interest payments on the previous borrowings.

Primary Deficit = Fiscal Deficit - Interest Payments

The total borrowings requirements of the government's borrowings are going to meet expenses other than the interest payments. The difference between fiscal deficit and primary deficit shows the amount of interest payments on the borrowings made in the past. So

a low or zero primary deficit indicates that interest commitments (on earlier loans) have forced the governments to borrow.

Comparison between primary deficit and fiscal deficit

Basis	Primary Deficit	Fiscal Deficit
Meaning	It shows the different between fiscal deficit and interest payments.	It shows the excess of total expenditure over total receipts excluding borrowing.
Indicator	It shows the total borrowings requirements of the government excluding interest.	It indicates the total borrowing requirements of the government, including interest.
Formula	Primary deficit = fiscal deficit - interest payment.	Fiscal deficit = total expenditure - total receipts excluding borrowing.

Govt. Budget - 8marks

1. Define government budget.(1)
2. Give meaning of capital expenditure and revenue expenditure in a government budget and an example of each. (3)
3. What is fiscal deficit? What are its implications?(4)
4. State the basis of classifying government receipts into revenue receipts and capital receipts .Give an example of each.(3)
5. In a government budget, primary deficit is rs.10,000 crores and interest payment is Rs.8000 crores. How much is the fiscal deficit?(1)

6. Giving reasons categorise the following into revenue expenditure and capital expenditure⊕4)

i-Subsidies

ii-Grants given to State Governments

iii- Repayment of loans.

iv- Construction of school buildings.

7. Give the meaning of revenue receipts and capital receipts in a government budget. Also give an example of each.(3)

8. Distinguish between direct tax and indirect tax. Give an example of each.(4)

9. What is a budget deficit? What is primary deficit and what does it indicate?(4)

10. Define revenue and capital receipts in a government budget. Give one example of each.(3)

11. Why is repayment of loans treated as capital expenditure?(1)

12. Define a government budget. State any four of its main objectives.(3)

13. Explain the meaning and implication of fiscal deficit.(4)

14. Why is recovery of loans treated as a capital receipt?(1)

15. Define tax. Give two example each of direct and indirect taxes.(3)

16. Why are borrowings treated as capital receipts?(1)

17. What is the basis of classifying government expenditure into revenue expenditure and capital expenditure? Give an example of each.(3)

18. Why are receipts from taxes categorized as revenue receipts?(1)

19. Distinguish between revenue expenditure and capital expenditure in a government budget. Give one examples of each.(3)

20. Explain the concept of primary deficit in a government budget. What does this deficit indicate?(4)

21. Why is interest received categorized as revenue receipt?(1)

22. What is meant by fiscal deficit?(1)

23. What is meant by revenue deficit? What are the implication of this deficit?(3)

24. Explain briefly any two objectives of a government budget.(4)

25. Give two examples of indirect tax.(1)

26. Giving reasons, categorise the following into revenue receipt and capital receipts⊕3)

a- recovery of loans.

b- corporation of tax

c- disinvestments

27. Distinguish between Development and Non-Development expenditure. Give one example of each.(3)

BALANCE OF PAYMENT - 7 marks

1. What is fixed exchange rate system.(1)
 - 2 . When will balance of trade show a surplus?
 3. When exchange rate of foreign currency falls, its demand rises, Explain, how.(3)
 4. Distinguish between balance of trade and balance on current account.(3)
 5. Define foreign exchange rate. Why does the demand for foreign exchange rise when its price falls.(4)
 6. Explain the relation between fall in price of foreign exchange and its supply by giving two examples.(4)
 7. List the items included in the balance of trade account.(1)
 8. Name two sources of demand for foreign exchange.(1)
 9. Distinguish between the current account and the capital account of the balance of payments. State two components of each.(4)
 10. What does a deficit in balance of trade account indicate?(1)
 11. List four items each of current account and capital account of the balance of payments account.(4)OR
 12. Mention four sources each of demand and supply of foreign exchange.(4)
 13. What is the difference between the value of exports of good and value of imports of good called?(1)
 14. What is meant by balance of payments account?(1)
 15. A country's balance of trade is Rs.(-) 50 crores. Value of imports of goods is Rs.200 crores. How much is the value of export of goods?(1)
 16. Define balance of payments account. List any six items of this account.(4)
 17. A country's balance of trade is Rs. 500 crores. Value of exports of goods is Rs.650 crores. How much is the value of import of goods?(1)
 18. When is there a deficit in the balance of trade?(1)
 19. Distinguish between current account and capital account of balance of payments account. Mention any two transactions of capital account.(4)
OR
- How is the foreign exchange market rate determined? Explain with the help of a diagram.(4)
20. Define flexible exchange rate. Explain two merits of flexible exchange rate.(3)
 21. Briefly explain any three sources of supply of foreign exchange.
OR
- Distinguish between current account and capital account of balance of payments. Give examples.(3)

MONEY AND BANKING

Meaning of barter system: It means exchange of goods with another goods.

Features of barter system:

- 4) It is very simple system for the exchange of goods.
- 5) There is n possibility of over or under production because need based goods are produced for each other.
- 6) There is no problem of concentration of economic power into the hands of few rich persons.

Drawbacks or difficulties of barter system

- 6) **Double co-incidence of wants:** Barter is the only possible if there is double co-incidence of wants. It means that two persons who want to exchange two goods between each other, must be in need of goods of each other. However, it becomes difficult to find such persons every time.
- 7) **Lack of common measure of value:** In the barter system, there is no common measure(unit) of value of goods and services. All commodities are not of equal value and there is absence of a common denomination, which exchange ratios can be expressed. For example, if A has wheat and B has rice, then it is difficult of decide, how much wheat is needed to exchange with one kilogram of rice. In the absence of common measure, the exchange ratio is fixed arbitrarily, in which one of the party generally suffers.
- 8) **Problem of storing wealth:** Under a barter system is a absence of a proper and convenient means of storing wealth or value because of perishable nature of goods or high storage cost of goods.
- 9) **Lack of standard of deferred payment:** Barter system lacks a standard of deferred payments. Credit transactions are not possible under this system because of the following reasons.
 - c) The borrower may not be able to arrange goods of exactly of exactly same quality at the time of repayment.
 - d) The commodities, to be repaid, may loss or gain its value at the time of repayment.
- 10) **Lack of divisibility:** In the absence of common medium of exchange, a problem arises when a big individual commodity is to be exchange for a smaller commodity.

Meaning of money: Money is anything which is generally accepted as a medium of exchange, measure of value, store of value and means for, standards of deferred payment.

Definition of Money

5. Legal Definition of Money
6. Functional Definition of Money
7. Definition of the basis of Liquidity
8. Definition on the basis of Scope

Legal definition of money

Money is what the law says is money. So anything which the government declares as money is money. On the basis of legal recognition money is of two kinds:

- 2) **Legal Tender Money:** Money which can be legally used to make payment of debts or other obligations is termed as legal tender money. Legal tender money is of two kinds:
 - 3) **Limited Legal Tender:** In India, coins are limited legal tender.
 - 4) **Unlimited Legal Tender:** In India, paper notes are unlimited legal tender.

2) **Non- Legal tender Money or optional money:** It refers to that form of money, which is generally accepted, but legally, one is not bound to accept it. For example cheques, bank drafts, bills of exchange, etc. do not have legal backing and their acceptance is totally optional.

Functional definition of Money

Money refers to anything that performs the four basic functions of money:

- e) Medium of exchange
- f) Measure of value
- g) Standard of deferred payments
- h) Store of value

Definition on the basis of liquidity

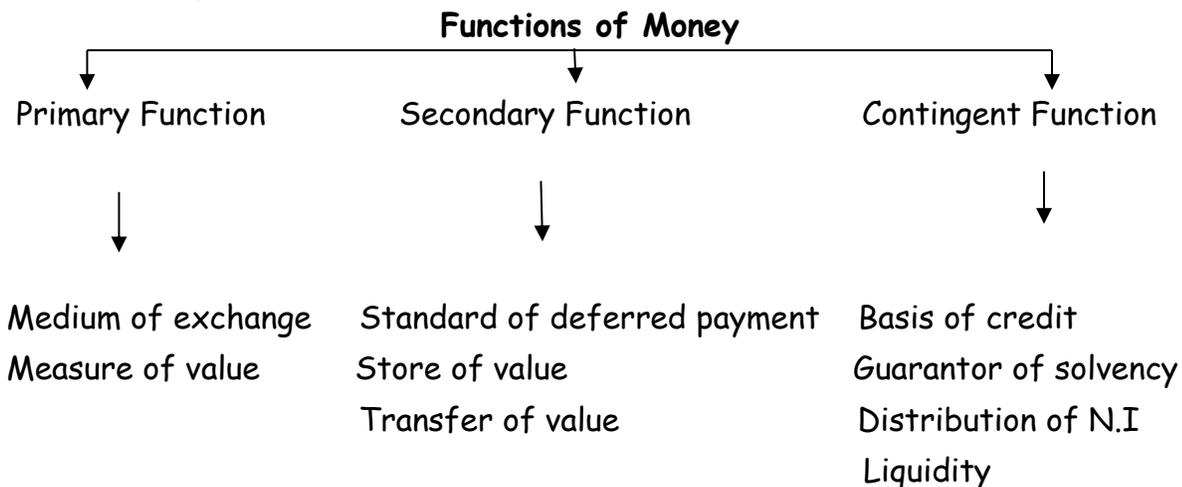
- iii. **Money or Liquids from Money:** Money has the quality of general acceptability which makes it the most liquid asset. By liquidity, we mean the speed and certainty with which an asset can be converted back into money. Coins, currency notes and bank money are the most liquid from money.
- iv. **Near Money:** It includes those financial assets, which are not as liquid as coins and currency notes, but can be easily converted into money for paying debts. For

example, National saving deposits, fixed deposited receipts, bonds etc. they are as good as money, but are non-legal tender money.

Definition on the basis of Scope

- iii. **Narrow Definition of Money:** It include only those things which functions as money. It includes currency notes, coins and demand deposits of banks as they perform the functions of money: a) Medium of exchange b) Measure of value c) Standard of deferred payments d) Store of value.
- iv. **Broad definition of Money:** In addition to narrow money, it also includes time deposits in banks and post offices. Time deposits are included as they have high degree of moneyness and can be converted into chequable deposits within a short span of time. Broad Definition of money= Money Assets + Near Money.

Functions of Money



Primary function: It includes those functions which are prime importance and common to all the countries during all the periods. These are:

- iii. **Medium of exchange:** Money as a medium of exchange or medium of payment is used for sale and purchase of goods and services. Anyone can get commodity in exchange of money. It means that we can get goods and services in exchange of money available with us. In this way, money removed the problem of double-coincidence of in this barter system and thus, reduced time and energy in the transaction. Money is also called as bearer of option or generalized, purchasing power. The money in this way of us freedom of choice.
- iv. **Measure of value:** Money measures value of good and services to facilities to sale and purchase of goods and services for eg. Rs. 30 per litre of milk. By

reducing the value of all goods and services to a single unit of account money has facilities and simplify the system of exchange.

Secondary function:

- iv. **Standard of deferred payment:** Deferred payments means the payment made in near future. In other words it mean with the help of money people can buy and sell goods and services only on commitment and payment of installment in the future. Payment of pension, salaries, installments, loans etc. are the example of deferred payment.
- v. **Store of value:** Money is the most liquid form of asset, so it is the best form to hold it. People always wants to keep currency note and coins with them. So they are in position in purchase things whenever they want.
- vi. **Transfer of value:** Money helps in transfer of value from one person to another. Sale or purchase of movable and immovable property can also be made with the help of money.

Contingent Function:

- v. **Liquidity:** Money is the most liquid assets which can be converted into other assts quickly. Money is also helpful to avail of the opportunity of investment into business by which an investor can get good amount of profit.
- vi. **Distribution of national income:** National Income of the country can be measured only in terms of money. We can assess distribution of National Income among the people through money.
- vii. **Basis of credit creation:** In a modern credit. For eg. Credit instrument like cheques, drafts, drafts, bills of exchange etc. can not be used without the existence of money. For instance, we may not be able to issue a cheque to somebody unless we have some money in our account in our account with banks.
- viii. **Guarantor of solvency:** Money is the guarantor of solvency of a person. If a person is able to pay his debt he will be called solvent. On the other hand if a person fails to honour its obligation, he will be called as insolvent and bankrupt.

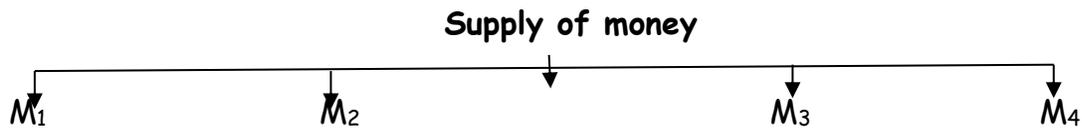
In short: "Money is a matter of four functions a medium, a measure, a store and standard of deferred payments".

Money of Money Supply

Money Supply refers to total volume of money held by at a particular point of time in an economy.

Measurement of money supply in India or money stock measures: The RBI has been publishing data on four alternative measures of supply there are:

M_1, M_2, M_3, M_4 .



Currency includes both paper currency and coins. Demand deposit included only net deposits with the bank. Other deposits includes demand deposits of financial institutions.

M_1 and M_2 measures narrow money whereas M_3 and M_4 measures broad money. M_1 is the most liquid and M_4 is the least liquid.

Distinguish between demand and term deposits.

Demand deposits	Term Deposits
5. It refers to current account and is highly liquid.	It refers to fixed deposits and is less liquid.
6. It can be withdrawn anytime without notice.	It can be withdrawn only after stipulated time period.
7. They are checkable deposits.	There is no facility of term deposits.
8. Demand deposits do not carry any interest paid by the bank.	Term deposits carry interest depending upon the time.

Who supplies money?

In the modern time, the source of supply of money are government, central bank of the country and commercial banks. In India, it is ministry of finance that issues 1 rupee note and all the coins. Money is mainly supplied by the RBI which is the central bank of the country. RBI issues currency on the basis of minimum reserve system. Under this system RBI has to maintain a minimum reserve, value of gold must be Rs. 115 crores.

Commercial Bank

Meaning: Commercial bank is an institution that operates for profit. It accepts deposits from general public and extent loans to household, firms and the government.

Credit Creation (Money Creation)

Credit creation is an important function of the commercial banks. By creating credits commercial banks contribute to money supply in the economy. Credit creation capacity of the commercial banks depends on their cash reserves and cash reserve ratio. Commercial banks

create credit several times more than their cash reserves. Credit creation occurs in the form of demand deposits. Ratio between demand deposits and cash reserves of the commercial banks is called credit multiplier. It is also estimated as the reciprocal of CRR(cash reserve ratio). Thus,

$$\text{Credit multiplier} = \frac{1}{\text{CRR}}$$

Assuming cash reserve ratio of 10 per cent, if commercial banks received demand deposits of Rs. 1,000, total credit creation in the economy will be:

$$= \frac{1}{\text{CRR}} \times$$

That is after keeping cash reserve ratio of 10 per cent, of Rs 1,000, the commercial bank can offer loan up to Rs. 10,000. Loans are reflected as demand deposits in the accounts of the borrowers. Accordingly, deposits of the banks are 10 times their cash reserves.

Meaning of Central Bank: Central bank is an apex body that controls, operates, regulates and directs the entire banking and monetary structure of the country. Central bank is the Reserve Bank of India (RBI). RBI was established in april 1, 1935 under the Reserve Bank of India Act passed in 1934.

Distinguish between central bank and commercial bank

Central Bank	Commercial Bank
6. Central bank is generally owned and governed by the government.	It operate both in the public and private sector.
7. It does not operate for profit.	Commercial bank operate mainly for profit.
8. There is only one central bank in a country.	There are many commercial bank in country.
9. Central bank has monopoly of issuing currency notes.	It cannot issue currency notes.
10. Central bank does not deal with public rather, it deals with	It deals with public.

commercial bank.	
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Credit central measures adopted by central bank

OR

Principles techniques of monetary mgt. by Central Bank.

The principles methods or instrument of credit control employed by a central bank can broadly into the following 2 categories:

Quantitative or General Methods: Those instrument which control credit for such section of the society known to be quantitative credit control instrument. It controls over the society known to be quantitative credit in the economy. Some of its important instruments are:

- v. **Bank Rate:** The bank rate is the minimum rate of which the central bank is prepared to give credit to the commercial bank. An increase in bank rate raises the cost of credit (rate of interest) and credit becomes expensive. Similarly, a decrease in bank rate lowers down the cost of credit becomes cheap.
- vi. **Open Market Operation:** It refer to sale and purchase of securities in the open market by the central bank. By selling the securities the central bank withdraws cash balances from within the economy, and by buying the securities the central bank contributes to cash balance in the economy.
Cash balances are high powered money on the basis of which commercial bank create credit. Thus, through open market operation if cash balances are increased, flow of credit will increase many times more and if cash balance reduces a flow of credit. Thus, through open market will increase many times more and if cash balance reduces a flow of credit will decrease many times more.
- vii. **Cash reserve ratio:** It refers to the minimum % of basis total deposits require to be kept with central bank. Commercial bank to keep with a certain % of their deposit in the form of cash reserve as a method of law.

When cash or credit is to be increased minimum reserve ratio is reduced, and when the cash flow or credit is to be reduced minimum cash reserve ratio is increased.

- viii. **Statutory Liquidity ratio:** Every bank is required to maintain a fixed(%age) of assets in the form of cash or liquid assets called SLR. With a view to reducing the flow of credit in the market increases the liquidity ratio is reduced.

Qualitative Credit Control Instruments: Those instruments which control credit section of the society are known as credit control instruments. These methods are also known as selective control instruments. These are:

- iv. **Margin Requirements:** The margin requirements of loan refers to the difference between the current value of the security offered for loans and the value of loans granted.
In case, the flow of credit is to restricted for certain specific business activities in the economy. The marginal requirements of loan is raised for those activity. The margin requirements is lowered in case the expansion of credit is desired.
- v. **Direct Action:** The central bank max initiate direct action against the member bank. Direct action includes derecognition of a commercial bank as a member of country's banking system.
- vi. **Moral suasion:** central bank issue oral or written appeals (through discussion letters hint's etc) to member banks to restrict credit with a view to dampen inflation.

Function of central bank:

- vi. **Issuing of notes OR Bank of Note issue:** these central bank has sole monopoly, to issue currency notes and coins issued by the central bank are the legal tender money. However, the monopoly of central bank to issue the currency notes maybe partial in certain countries.

For eg. : in India one rupee note issued by the country and all the other notes issued by the country and all the other notes issue to the central bank:

4. It brings uniformity in note circulation.
5. It enable the govt. to have supervision and control over the supply of money.
6. It gives distinctive prestige to the note issue as a result people develop faith in the country.

- vii. **Banker agent and financial adviser to state:** The central bank is also a govt. bank:

4. **As a govt. banker:** It perform the following function.
 - IV. Keeps the banking account of the govt.
 - V. Makes temporary advances to the govt.

VI. It carries govt. transaction involves in purchase and sales of foreign currencies.

5. **As advisor:** central bank advises the govt. on all financial and monetary matter and also in formulation of general economic policies.

6. **As the govt. agent:** it performs the following function:

IV. Issue new loans on behalf of the govt.

V. It collects taxes and another payments ion behalf of the govt.

VI. It represent the govt. in the international financial institution, such as world bank, IMF etc.

viii. **Bankers bank:** central bank is the bankers to the bank in the following ways:

IV. **As the custodian of cash reserves of the commercial banks:**

Commercial banks are required to keep a certain proportion of their deposits (CRR) with the central bank. In this way, central bank act as the custodian of cash reserve of the commercial bank.

V. **As lender of the last resort:** when commercial banks fail to meet their financial requirements from other sources, they can approach the central bank which gives loans and advances as lender of the last resort. Central bank assists these banks through discounting at approved securities and bills of exchange.

VI. **Clearing house function:** As the custom of cash reserve of the commercial bank, the central bank act as the clearing house of these banks. Since all banks have their account with the central bank. The central bank can easily settled the claims of various banks against each other simply by book entries of transfer from one to other accounts. This method of settling accounts is called clearing house function of the central bank.

ix. **Custodian of foreign exchange reserve:** central bank of a country manages and control the foreign exchange reserve and gold. It can sell gold to get foreign exchange and also can purchase foreign currencies at international prices.

x. **Controller of credit:** credit control's the most important function of central bank. The credit can be control by qualitative and quantitative methods.

Political Science
Class : XII
Revision Plan

1) Fill in the blanks:

- a) Indian constitution was signed on _____.
- b) Indian constitution came into effect on _____.
- c) The Election Commission of India was set up in _____.
- d) _____ became the first chief election commissioner.
- e) In the year _____ the entire country used EVMs.
- f) Congress party won _____ out of _____ seats in the first Lok Sabha.
- g) _____ party came second in the first Lok Sabha elections by winning _____ seats.
- h) In the state assembly elections of 1957 Congress did not get majority in _____.
- i) _____ party came to power through democratic elections for the first time in the world.

2) Why was it not easy for the Election Commission to hold a free and fair election after India's independence?

3) When were the first general elections held in India?

4) Explain how the general election of 1952 became a landmark in the history of democracy all over the world?

5) Which party dominated the first three general elections and why?

6) Which other elections were held with Lok Sabha elections?

7) When did the second and the third general elections take place in India?

8) How did Congress misuse constitutional emergency powers in the case of communist victory in Kerala?

9) Write short notes on the following:

- a) Socialist party

1. Who was P.C Mahalobis?
2. Which state of India felt famine condition during 1966-1967?
3. Name the party of Mexico?
4. What is Plan holiday?
5. Who were Razakars?
6. What are the left wing and the right wing ideologies.
7. What is instrument of Accession?
8. What is meant by Planned development?
9. Mention the main Objectives of Second five year Plan.
10. What is SRC? When did it take place?
11. What is Green Revolution? Mention its two impact on Economy.
12. What do you mean by 'One Party dominance'?
13. Which movement demanded the separate province?

14. match 1) Fill in the blanks:

- a. Charni a) India gained independence on _____.
- b. Bihar fa b) _____ was the first prime minister of India.
- c. Verghe c) The famous speech of JawaharLal Nehru is known as _____.
- d. Bodha d) Freedom came with the _____ of India.
- e) India became a republic on _____.

- 2) Explain the three challenges faced by independent India.
- 3) What were the two goals set to be achieved by independent India?
- 4) Which party gave the 'two nation' theory? What was it?
- 5) What principle was followed while partitioning India?
- 6) What kind of difficulties were involved in the process of partition?
- 7) What were the consequences of partition?
- 8) Why did the idea of a secular nation emerge in India?
- 9) What was Mahatma Gandhi's sacrifice for India?
- 10) How was the British India divided before independence?
- 11) How many princely states were there before independence?

b) Hyderabad

c) Bhopal

13) Why was the integration of princely states a problem for India?

14) Who was the deputy prime minister and the first home minister of independent India? How did he solve the problem of integration of princely states?

15) What three considerations guided the government's approach to the princely states?

Revision Plan
Class: XII
Subject: Political Science

TOPIC – Challenges to and Restoration of Congress System.

1. Why is 1960's called a dangerous decade in the political history of India?
2. Who succeeded Nehru's as the prime minister of India?
3. Who was the congress president when Nehru passed away?
4. For which duration did Shastri remain the prime minister of India?
5. What were the two challenges faced by shastri?
6. What happened at Tashkent?
7. How did indira Gandhi manage to succeed shastri?
8. Why did Indra Gandhi face problems in the initial years?
9. Why did congress get less seats in 1967 elections?
10. What do you mean by non congressism?
11. Why were 1967 elections describe as political earthquake by many?
12. Name the political stalwarts of congress who lost 1967 elections?
13. Name two northern and two southern states where congress lost assembly polls of 1967?
14. Name the state where a non congress party secured a majority of its own in 1967? Name the party also?
15. Explain the statement "the elections of 1967 brought into picture the phenomenon of coalition"?
16. What is defection?

Chapter 6

APPLICATION OF DERIVATIVES

1 Mark Questions

- Q1 How will you interpret geometrically $\frac{dy}{dx}$ of a function at a point (x_0, y_0)
- Q2 Find the rate of change of area of a circle with respect to its radius 'r' when $r = 5$ cm.
- Q3 The total cost $C(x)$ in rupees, associated with the production of x units of an item is given by $C(x) = 0.005x^3 - 0.002x + 5000$. Find the marginal cost when only two items are produced.
- Q4 Total revenue in selling x units of a product is given by $R(x) = 3x^3 + 36x + 5$. Find the marginal revenue when $x = 5$.
- Q5 Show that function $f(x) = 2x - 1$ is strictly increasing on \mathbb{R} .
- Q6 Write the condition for a function f to be strictly increasing. {
 $f'(x) > 0, \forall x \in D_f$ }
- Q7 Write the condition for a function f to be strictly decreasing. {
 $f'(x) < 0, \forall x \in D_f$ }
- Q8 Show that function $f(x) = \cos x$ is strictly increasing on $(\pi, 2\pi)$.
- Q9 Show that function $f(x) = \cos x$ is strictly increasing on $(0, \pi)$.
- Q10 Show that function $f(x) = \cos x$ is neither increasing nor decreasing on $(0, 2\pi)$.
- Q11 Find the point of inflection for the function $f(x) = x^3$.
- Q12 Find the intervals in which the function $f(x) = x^2 - 2x$ is strictly increasing.
- Q13 Find the intervals in which the function $f(x) = x^2 - 2x$ is strictly decreasing.
- Q14 Write the domain of the function $f(x) = \log(1+x) - \frac{2x}{1+x}$.
- Q15 Find the slope of the tangent to the curve $y = x^3 - x + 1$ at the point where the curve cuts y-axis.

4 Mark Questions

- Q1 Prove that the curves $x = y^2$ and $x, y = k$ cut each other at right angle if $8k^2 = 1$.
- Q2 Find the points on the curve $x^3 + y^3 - 2x - 3 = 0$ at which tangents are

- parallel to x-axis.
- Q3 Find the points on the curve $y = x^3$ at which tangent makes angle of 45° to x-axis
- $$\left(\left(\frac{1}{\sqrt{3}}, \frac{1}{3\sqrt{3}} \right); \left(-\frac{1}{\sqrt{3}}, -\frac{1}{3\sqrt{3}} \right) \right)$$
- Q4 Find the points on the curve $y = x^3$ at which slope of the tangent is equal to the ordinate of the point.
- Q5 Find the points on the curve $x^2 + 3y = 3$ where the tangent is perpendicular to the line $4y + x = -5$.
- Q6 Find the equation of tangent to the curve $16x^2 + 9y^2 = 144$ at the point (x_1, y_1) where $x_1 = 2$ and $y_1 > 0$.
- Q7 Find the least value of 'b' for which $f(x) = x^3 + bx + 1$ is an increasing on $[1, 2]$
- Q8 Find the points of local max. and local min. for the function. Also find their max. / minimum values $y = \sin x - \cos x, 0 \leq x \leq 2\pi$
- Q9 Find the absolute maximum and absolute minimum values of the function $f(x) = 2 \cos 2x - \cos 4x$, on $[0, \pi]$
- Q10 If $f(x) = x^3 + ax^2 + bx + c$ has a maximum at $x = -1$ and minimum at $x = 3$. Show that $a = -3, b = -9, c \in \mathbb{R}$
- Q11 A given rectangular area is to be fenced off in a field whose length lies along a straight river. If no fencing is required along the river show that least amount of fencing will be required when length of the field is twice its breadth.
- Q12 Find the angle x which is increasing twice as fast as its sine.
- Q13 Using differential, find the approximate value of $\tan^{-1}(0.999)$.
- Q14 If $y = x^4 - 10$ and if x changes from 2 to 1.99, find the approximate change in y .
- Q15 If the side of a cube is increased from 10 cm to 10.01 cm.. Find approximate change in the volume of the cube.

6 Mark Questions

- Q1 Find the equation of tangent to the curve $y = \cos(x + y), -2\pi \leq x \leq 2\pi$ that are parallel to the line $x + 2y = 0$.
- Q2 Find the points on the curve $y = 4x^3 - 2x^5$ at which tangent passes through the origin.

- Q3 Find the angle of intersection of the curves $y = x^2$ & $x^2 + y^2 = 20$
- Q4 Find the intervals in which following functions are strictly increasing or strictly decreasing $f(x) = x^x, x > 0$.
- Q5 Find the intervals in which following functions are strictly increasing or strictly decreasing $f(x) = (x + 1)^x(x - 3)^x$
- Q6 Find the absolute maximum and absolute minimum values of the function $f(x) = -x + 2\sin x$ on $[0, 2\pi]$
- Q7 A jet of an enemy is flying along the curve $y = x^2 + 2$. A soldier is placed at the point $(3, 2)$. Find the nearest distance between the soldier and the jet.
- Q8 An open box with a square base is to be made out of a given quantity of sheet of area c^2 . Show that the maximum volume of the box is $c^3 / 6\sqrt{3}$.
- Q9 A sheet of paper for a poster is 15000 sq. cm. in area. The margins at the top and bottom are to be 6 cm. wide and at the sides 4 cm. wide. Find the dimensions of the sheet to maximize the printed area.
- Q10 A given quantity of metal to be cast into half cylinder with a rectangular base and semicircular ends. Show that in order that total surface area is minimum, the ratio of length of cylinder to the diameter of its semi-circular ends is $\pi : \pi + 2$.

Answers: APPLICATION OF DERIVATIVES

1 Mark Questions

- Q2 {10 π }
- Q3 {Rs. 0.018}
- Q4 {Rs. 66}
- Q11 { $x = 0$ }
- Q12 {(1, ∞)}
- Q13 { $(-\infty, 1)$ }
- Q14 { $x > 1$ }
- Q15 t-11

Chapter 5

CONTINUITY AND DIFFENTIABILITY

1 Mark Questions

- Q1 Check the continuity of the function $f(x) = \begin{cases} 1, & \text{if } x \leq 0 \\ 2, & \text{if } x > 0 \end{cases}$
- Q2 Check the continuity of the function $f(x) = |x|$ at $x = 0$
- Q3 Check the continuity of the function $f(x) = \sin x + x^2$ at $x = \pi$
- Q4 Examine the continuity of the function $f(x) = |x|$
- Q5 Write the points of discontinuity of the function $f(x) = [x]$ where $[x]$ denotes the greatest integer function less than or equal to x .
- Q6 Write the points of discontinuity of the function $f(x) = \frac{x^2 - 25}{x - 5}$.
- Q7 Give an example of a function which is continuous but not differentiable.
- Q8 Find the derivative of $\sin(\cos^2(\sqrt{x}))$.
- Q9 Find the points in the open interval $(0, 3)$ where the greatest integer function $f(x) = [x]$ is not differentiable.
- Q10 Write the derivative of the function $f(x) = \tan^{-1} \sqrt{\sin x}$ w. r. to x .
- Q11 Is it true that $\log(x^{\sin x} + \cos^{\sin x} x) = \sin x \log x + \sin x \log \cos x$?
- Q12 If $x = f(t)$ and $y = g(t)$, then is $\frac{d^2 y}{dx^2} = \frac{d^2 y / dt^2}{d^2 x / dt^2}$?
- Q13 Check the applicability of Rolle's theorem for $f(x) = [x]$ on $[1, 5]$.
- Q14 Discuss the continuity of the function $f(x) = \sin|x|$
- Q15 Discuss the continuity of the function $f(x) = |x| - |x - 1|$

4 Mark Questions

- Q1 Differentiate $\log(x + \sqrt{1+x^2})$
- Q2 Differentiate $\frac{\sqrt{a+x} + \sqrt{a-x}}{\sqrt{a+x} - \sqrt{a-x}}$

- Q3 Find $\frac{dy}{dx}$ for $\sin(xy) + \frac{x}{y} = x^2 - y$
- Q4 If $2^x + 2^y = 2^{x+y}$, show that $\frac{dy}{dx} = -2^{y-x}$
- Q5 If $\tan^{-1}\left(\frac{x^2 - y^2}{x^2 + y^2}\right) = a$, show that $\frac{dy}{dx} = \frac{x(1 - \tan a)}{y(1 + \tan a)}$
- Q6 Differentiate $\tan^{-1}\left(\frac{a \cos x - b \sin x}{b \cos x + a \sin x}\right)$
- Q7 Differentiate $x^2 + x^a + a^x + a^a$
- Q8 Differentiate $\left(x + \frac{1}{x}\right)^2 + x^{\left(x + \frac{1}{x}\right)}$
- Q9 Find $\frac{dy}{dx}$ for $x = \frac{\sin^2 \theta}{\sqrt{\cos 2\theta}}$, $y = \frac{\cos^3 \theta}{\sqrt{\cos 2\theta}}$
- Q10 Find $\frac{dy}{dx}$ for $x = \sqrt{a^{\sin^{-1} x}}$, $y = \sqrt{a^{\cos^{-1} x}}$
- Q11 If $y = (\tan^{-1} x)^2$ show that $(1 + x^2)^2 \frac{d^2 y}{dx^2} + 2x(1 + x^2) \frac{dy}{dx} - 2 = 0$
- Q12 If $\sin y = x \cos(a + y)$, show that $\frac{dy}{dx} = \frac{\cos^2(a + y)}{\cos a}$
- Q13 If $y\sqrt{1 - x^2} + x\sqrt{1 - y^2} = 1$, show that $\frac{dy}{dx} = -\sqrt{\frac{1 - y^2}{1 - x^2}}$
- Q14 If $x \sin(a + y) + \sin a \cos(a + y) = 0$, show that $\frac{dy}{dx} = \frac{\sin^2(a + y)}{\sin a}$
- Q15 Check the continuity of the function $f(x) = \begin{cases} \frac{x - |x|}{x}, & x \neq 0 \\ 2, & x = 0 \end{cases}$ at $x = 0$

6 Mark Questions

- Q1 If $y = (\sin^{-1} x)^2$ show that $(1 - x^2) \frac{d^2 y}{dx^2} - x \frac{dy}{dx} = 2$

- Q2 Find $\frac{d^2y}{dx^2}$ for the function $x = a(\theta + \sin\theta)$, $y = a(1 + \cos\theta)$ at $\theta = \frac{\pi}{2}$
- Q3 Find $\frac{dy}{dx}$ for $\tan^{-1}(\sqrt{1+x^2} + x)$
- Q4 Find $\frac{dy}{dx}$ for $\tan(x+y) + \tan(x-y) = 1$
- Q5 Show that the function defined by $g(x) = x - [x]$ is discontinuous at all integral points.

Answers: Continuity and Differentiability
1 Mark Questions

- Q1 {Not Continuous}
- Q2 {Continuous}
- Q3 {Continuous}
- Q4 {Continuous}
- Q5 {All integers}
- Q6 $\{x = 5\}$
- Q7 $\{f(x) = |x|\}$
- Q8
$$\frac{-\cos(\cos^2 \sqrt{x}) \sin \sqrt{x} \cos \sqrt{x}}{\sqrt{x}}$$
- Q9 $\{1, 2\}$
- Q10 $\left\{ \frac{\cos x}{2\sqrt{\sin x} (1 + \sin x)} \right\}$
- Q11 {No}
- Q12 {No}
- Q13 {Not applicable}
- Q15 {Continuous}
- Q14 {Continuous}

Chapter 4 DETERMINANTS

1 Mark Questions

Q1 If A is a square matrix of order 3 and $|A| = 5$, find the value of $|-3A|$

Q2 If ω is cube root of unity find the value of

$$\Delta = \begin{vmatrix} 1 & \omega & \omega^2 \\ \omega & \omega^2 & \omega \\ \omega^2 & 1 & 1 \end{vmatrix}$$

Q3 Find the value of determinant

$$\Delta = \begin{vmatrix} 1 & 2 & 4 \\ 8 & 16 & 32 \\ 64 & 128 & 256 \end{vmatrix}$$

Q4 Find the value of determinant

$$\Delta = \begin{vmatrix} 2 & 2 & 2 \\ x & y & z \\ y+z & z+x & x+y \end{vmatrix}$$

Q5 If a, b, c are in A.P. find the value of determinant

$$\Delta = \begin{vmatrix} x+1 & x+2 & x+a \\ x+2 & x+3 & x+b \\ x+3 & x+4 & x+c \end{vmatrix}$$

Q6 For what value of k, the matrix $\begin{bmatrix} 2 & k \\ 3 & 5 \end{bmatrix}$ has no inverse

Q7 A B C are three non zero matrices of same order, then find the condition on A such that $AB = AC \Rightarrow B = C$

Q8 Let A be a non singular matrix of order 3×3 , such that $|\text{Adj}A| = 100$, find $|A|$.

Q9 If A is a non singular matrix of order n, then write the value of $\text{Adj}(\text{Adj}A)$ and hence write the value of $\text{Adj}(\text{Adj}A)$ if order of A is 3 and $|A| = 5$

Q10 Let A be a diagonal $A = (d_1, d_2, \dots, d_n)$ write the value of $|A|$.

Q11 Using determinants find the value of the line passing through the points (-1,3) and (0,2).

Q12 Using determinants find the value of k for which the following system of equations has unique solution,

$$\begin{aligned} 2x - 5y &= 26 \\ 3x + ky &= 5 \end{aligned}$$

4 Mark Questions

Q1 If $A = [a_{ij}]$ is a 3×3 matrix and A_{ij} 's denote cofactors of the corresponding elements a_{ij} 's then write the value of ,

(i) $a_{11} A_{11} + a_{12} A_{12} + a_{13} A_{13}$

(ii) $a_{12} A_{12} + a_{22} A_{22} + a_{32} A_{32}$

(iii) $a_{21} A_{11} + a_{22} A_{12} + a_{23} A_{13}$

(iv) $a_{11} A_{13} + a_{21} A_{23} + a_{31} A_{33}$

Q2 If $x \in \mathbb{R}$, $\pi/2 \geq x \geq 0$ and $\begin{vmatrix} 2\sin x & -1 \\ 1 & \sin x \end{vmatrix} = \begin{vmatrix} 3 & 0 \\ -4 & \sin x \end{vmatrix}$ find the values of x .

Q3 If a, b, c are all distinct and $\begin{vmatrix} a & a^2 & 1+a^3 \\ b & b^2 & 1+b^3 \\ c & c^2 & 1+c^3 \end{vmatrix} = 0$, find the values of a, b and c .

Q4 If x is a real number then show that if $\Delta = \begin{vmatrix} 1 & \sin x & 1 \\ -\sin x & 1 & \sin x \\ -1 & -\sin x & 1 \end{vmatrix}$ then, $2 \leq \Delta \leq 4$

Q5 If x, y, z are real numbers such that $x + y + z = \pi$ then find the value of ,

$$\begin{vmatrix} \sin(x+y+z) & \sin(x+z) & \cos z \\ -\sin y & 0 & \tan x \\ \cos(x+y) & \tan(y+z) & 0 \end{vmatrix}$$

Q6 Without expanding find the value of the following determinant,

$$\Delta = \begin{vmatrix} \sin \alpha & \cos \alpha & \cos(\alpha + \delta) \\ \sin \beta & \cos \beta & \cos(\beta + \delta) \\ \sin \gamma & \cos \gamma & \cos(\gamma + \delta) \end{vmatrix}$$

Q7 Find value of k , if area of the triangle with vertices $P(k, 0)$, $Q(4, 0)$ and $R(0, 2)$ is 4 square units

Q8 If $A = \begin{bmatrix} 1 & \tan x \\ -\tan x & 1 \end{bmatrix}$ show that $A' A^{-1} = \begin{bmatrix} \cos 2x & -\sin 2x \\ \sin 2x & \cos 2x \end{bmatrix}$

Q9 Prove that, $\begin{vmatrix} 1 & 1+p & 1+p+q \\ 2 & 3+2p & 4+3p+2q \\ 3 & 6+3p & 10+6p+3q \end{vmatrix} = 1$

Q10 Using properties prove that, $\begin{vmatrix} x-3 & x-4 & x-\alpha \\ x-2 & x-3 & x-\beta \\ x-1 & x-2 & x-\gamma \end{vmatrix} = 0$

where α, β, γ are in A.P.

Q11 Prove that, $\begin{vmatrix} x+y & x & x \\ 5x+4y & 4x & 2x \\ 10x+8y & 8x & 3x \end{vmatrix} = x^3$

6 Mark Questions

Q1 If $a \neq p$, $b \neq q$, $c \neq r$ and $\begin{vmatrix} p & b & c \\ a & q & c \\ a & b & r \end{vmatrix} = 0$ find the value of

$$\frac{p}{p-a} + \frac{q}{q-b} + \frac{r}{r-c}$$

Q2 For the matrix $A = \begin{bmatrix} 3 & 2 \\ 1 & 1 \end{bmatrix}$ find the numbers a and b such that

$$A^2 + aA + bI = O. \text{ Hence find } A^{-1}.$$

Q3 Solve the equation if $a \neq 0$ and

$$\begin{vmatrix} x+a & x & x \\ x & x+a & x \\ x & x & x+a \end{vmatrix}$$

Q4 Show that the value of the determinant $\Delta = \begin{vmatrix} a & b & c \\ b & c & a \\ c & a & b \end{vmatrix}$ is negative, It is given that a, b, c , are positive and unequal.

Q5 Using matrix method, determine whether the following system of equations is consistent or inconsistent.

$$3x - y - 2z = 2$$

$$2y - z = -1$$

$$3x - 5y = 3$$

Q6 . If $A^{-1} = \begin{bmatrix} 3 & -1 & 1 \\ -15 & 6 & -5 \\ 5 & -2 & 2 \end{bmatrix}$ and $B = \begin{bmatrix} 1 & 2 & -2 \\ -1 & 3 & 0 \\ 0 & -2 & 1 \end{bmatrix}$ find $(AB)^{-1}$.

Q7 Let $A = \begin{bmatrix} 1 & -2 & 1 \\ -2 & 3 & 1 \\ 1 & 1 & 5 \end{bmatrix}$ then, verify that, $(\text{Adj}A)^{-1} = \text{Adj}(A^{-1})$

Answers: DETERMINANTS
1 Mark Questions

Q1 -135

Q2 0 (using properties)

Q3 0 (using properties)

Q4 0 (using properties)

Q5 0 (using properties)

Q6 $k = \frac{10}{3}$

Q7 $|A| \neq 0$

Q8 $|A| = \pm 10$

Q9 For a non-singular matrix of order $n > 1$, $\text{Adj}(\text{Adj}A) = (|A|)^{n-2} \cdot A$

\therefore if order of matrix A is 3×3 and $|A| = 5$, then

$$\text{Adj}(\text{Adj}A) = 5A$$

Q10 $|A| = d_1 \cdot d_2 \cdot d_3 \dots \dots \dots d_n$

Q11 $x + y = 2$

Q12 $k \neq -\frac{15}{2}$ (all real numbers except $-\frac{15}{2}$)

4 Mark Questions

Q1 (i) Value of $|A|$

(ii) Value of $|A|$

(iii) 0 (iv) 0

Q2 $\mathbf{x} = \frac{\mathbf{i}}{6}, \frac{\mathbf{j}}{2}$

Q3 $abc = -1$

Q5 0

Q6 0

Q7 $k = 8, 0$

6 Mark Questions

Q1 0

Q2 $a = -4, b = 1$

$$A^{-1} = \begin{bmatrix} 1 & -2 \\ -1 & 3 \end{bmatrix}$$

Q3 $\mathbf{x} = -\frac{\mathbf{a}}{3}$ or $\mathbf{x} = -\frac{\mathbf{a}}{2}$

Q5 Inconsistent

Q6 $(AB)^{-1} = \begin{bmatrix} 9 & -3 & 5 \\ -2 & 1 & 0 \\ 1 & 0 & 2 \end{bmatrix}$

Chapter 3

Matrix

1 Mark Questions

Q1 Write the number of possible matrices which can be made if it has 12 elements.

Q2 Let $A = [a_{ij}]$ be a matrix of order 2×3 and

$$a_{ij} = \frac{i-j}{i+j}, \text{ write the value of } a_{23}.$$

Q3 If $\begin{bmatrix} a+b & 2 \\ 5 & ab \end{bmatrix} = \begin{bmatrix} 6 & 2 \\ 5 & 8 \end{bmatrix}$ find the relation between a and b .

Q4 If following information regarding the number of men and women workers in three factories I, II and III is written in the form of 3×2 matrix. What does the entry in third row and second column represent?

	Men workers	Women workers
Factory I	30	25
Factory II	25	31
Factory III	27	26

Q5 If, $A = [a_{ij}] = \begin{bmatrix} 2 & 3 & -5 \\ 1 & 4 & 9 \\ 0 & 7 & -2 \end{bmatrix}$ and $B = [b_{ij}] = \begin{bmatrix} 2 & -1 \\ -3 & 4 \\ 1 & 2 \end{bmatrix}$

Write the value of (i) $a_{21} + b_{11}$

(ii) $a_{11} b_{11} + a_{21} b_{21}$

Q6 Is it possible to have the product of two matrices to be the null matrix while neither of them is the null matrix? If it is so, give an example.

Q7 Under what conditions is the matrix equation

$$A^2 - B^2 = (A-B)(A+B) \text{ is true.}$$

Q8 Write the order of matrix B if A is any matrix of order $m \times n$ such that

AB and BA both are defined.

Q10

$$\text{If } A = \begin{bmatrix} -1 & 2 & -5 \end{bmatrix} \quad B = \begin{bmatrix} 2 \\ -1 \\ 7 \end{bmatrix}$$

write the orders of AB and BA.

Q11

Give an example of two non-zero matrices A and B such that
 $AB = 0$ but $BA \neq 0$.

Q12

$$\text{If } A = \begin{bmatrix} 0 & 0 \\ -1 & 0 \end{bmatrix} \text{ find } A^6.$$

Q13

$$\text{If } A = \begin{bmatrix} \alpha & \beta \\ \gamma & -\alpha \end{bmatrix} \text{ and } A^2 = I, \text{ find the value of } \alpha^2 + \beta\gamma$$

Q14

$$\text{If } A = \begin{bmatrix} \sin x & -\cos x \\ \cos x & \sin x \end{bmatrix}$$

$$0 < x < \frac{\pi}{2} \text{ and } A + A' = I,$$

where I is unit matrix, find value of x.

Q15

If the following matrix is skew symmetric, find the values of a, b, c.

$$A = \begin{bmatrix} 0 & a & 3 \\ 2 & b & -1 \\ c & 1 & 0 \end{bmatrix}$$

Q16

If A and B are symmetric matrices and $AB = BA$, prove that
matrix $X = AB$ is also symmetric.

Q17

If A and B are square matrices of same order and B is symmetric,
show that $A'BA$ is also symmetric.

Q18

Give an example of a matrix which is both symmetric
and skew symmetric

Q19

$$\begin{bmatrix} 2 & 3 \\ 1 & 0 \end{bmatrix} = P + Q, \text{ where } P \text{ is symmetric and } Q \text{ is}$$

skew symmetric matrix, find the matrices P and Q.

Q20

If A is square matrix then write the value of
 $A(\text{Adj}A)$

4 Mark Questions

Q1

For what values of x and y are the following matrices equal

$$A = \begin{bmatrix} 2x+1 & 3y \\ 0 & y^2-5y \end{bmatrix} \quad B = \begin{bmatrix} x+3 & y^2+2 \\ 0 & -6 \end{bmatrix}$$

Q2 Find matrix A such that $2A-3B+5C = 0$ where,

$$B = \begin{bmatrix} -2 & 2 & 0 \\ 3 & 1 & 4 \end{bmatrix} \quad C = \begin{bmatrix} 2 & 0 & -2 \\ 7 & 1 & 6 \end{bmatrix}$$

Q3 Find the values of x and y for which the following matrix equation

$A-3B = C$ is satisfied, where

$$A = \begin{bmatrix} x^2 \\ y^3 \end{bmatrix} \quad B = \begin{bmatrix} x \\ 2y \end{bmatrix} \quad C = \begin{bmatrix} -2 \\ 9 \end{bmatrix}$$

Q4 Let $f(x) = x^2 - 5x + 6$, find $f(A)$

$$\text{If, } A = \begin{bmatrix} 2 & 0 & 1 \\ 2 & 1 & 3 \\ 1 & -1 & 0 \end{bmatrix}$$

5. If, $A = \begin{bmatrix} a & 0 \\ 1 & 1 \end{bmatrix}$ and $B = \begin{bmatrix} 1 & 0 \\ 5 & 1 \end{bmatrix}$ find all those values of a for which

$$A=B.$$

Q6 . Using Principle of Mathematical Induction, prove that

$$A^n = \begin{bmatrix} 1+2n & -4n \\ n & 1-2n \end{bmatrix} \quad \text{Where, } A = \begin{bmatrix} 3 & -4 \\ 1 & -1 \end{bmatrix}$$

6 Mark Questions

Q1 If $A = \begin{bmatrix} 3 & 1 \\ 7 & 5 \end{bmatrix}$ find x, y such that $A^2 + xI = yA$

Hence find A^{-1} .

Q2 If $A = \begin{bmatrix} 1 & 1 & 1 \\ 1 & 1 & 1 \\ 1 & 1 & 1 \end{bmatrix}$ Prove that, $A^n = \begin{bmatrix} 3^{n-1} & 3^{n-1} & 3^{n-1} \\ 3^{n-1} & 3^{n-1} & 3^{n-1} \\ 3^{n-1} & 3^{n-1} & 3^{n-1} \end{bmatrix}$ for

every positive integer n .

Q3 The sum of three numbers is -1. If we multiply the second number by 2, third number by 3 and add them we get 5. If we subtract the third number from the sum of first and second numbers we get -1. Represent it by a system of equations. Find the three numbers using inverse of a matrix.

Q4 If $A(x_1, y_1)$, $B(x_2, y_2)$ and $C(x_3, y_3)$ are the vertices of an equilateral triangle with each side equal to 'a' units, prove that,

$$\begin{vmatrix} x_1 & y_1 & z_1 \\ x_2 & y_2 & z_2 \\ x_3 & y_3 & z_3 \end{vmatrix} = \sqrt{3} a^2$$

Answers: Matrix

1 Mark Questions

Q1 6

Q2 -1/5

Q3 $a=2b$ { $a=4, b=2$ }

Q4 Number of women workers in factory III.

Q5 1, 20

Q6 $A = \begin{bmatrix} 0 & 2 \\ 0 & 0 \end{bmatrix}$ $B = \begin{bmatrix} 1 & 0 \\ 0 & 0 \end{bmatrix}$ $AB = \begin{bmatrix} 0 & 2 \\ 0 & 0 \end{bmatrix}$

Q7 $AB = BA$ ie, if the matrices A & B commute with each other.

Q8 $n \times m$

Q9 $k = 4, a = -4, b = -10, c = 0$

Q10 $1 \times 1, 3 \times 3,$

Q10 $A = \begin{bmatrix} 1 & 0 \\ 0 & 1 \end{bmatrix} \quad B = \begin{bmatrix} 0 & 0 \\ 1 & 0 \end{bmatrix}$

Q12 $A^t = \begin{bmatrix} 0 & 0 \\ 0 & 0 \end{bmatrix}$

Q13 $\alpha^2 + \beta^2 = 1$

Q14 $x = \pi/6$

Q15 $a = -2, b = 0, c = -3$

Q18 Null Matrix

Q19 $P = \begin{bmatrix} 2 & 2 \\ 2 & 0 \end{bmatrix} \quad Q = \begin{bmatrix} 0 & 1 \\ -1 & 0 \end{bmatrix}$

Q20 $|A| I$

4 Marks Questions

Q1 $x=2, y=2$

Q2 $A = \begin{bmatrix} -8 & 3 & 5 \\ -13 & -1 & -9 \end{bmatrix}$

Q3 $x=1, 2 \quad y=3 \pm 3\sqrt{2}$

Q4 $f(A) = \begin{bmatrix} 1 & -1 & -3 \\ -1 & -1 & -10 \\ -5 & 4 & 4 \end{bmatrix}$

Q5 No values of α can be found for which $A^t = B$ is true.

Q6 order of $A=2 \times 3$

$$A = \begin{bmatrix} 1 & -2 & -5 \\ 3 & 4 & 0 \end{bmatrix}$$

6 Mark Questions

Q1 $x = 8 \quad y = 8$

Q2 $A^{-1} = \frac{1}{8} \begin{bmatrix} 5 & -1 \\ -7 & 3 \end{bmatrix}$

Q3 Let numbers be x, y, z then

$$x + y + z = -1$$

$$2y + 3z = 5$$

$$x + y - z = -1$$

Ans $x = -\frac{7}{2}$, $y = \frac{5}{2}$, $z = 0$

कक्षा XII विषय- हिन्दी

1. प्रकरण – अभिव्यक्ति व लेखन

प्रश्न 1: निम्नलिखित काव्यांश को पढ़कर दिए गए प्रश्नों के उत्तर दें। $2 \times 5 = 10$

संकटों से वीर घबराते नहीं आपदाएं देख छिप जाते नहीं
लग गए जिस काम में, पूरा किया, काम कर के व्यर्थ पछताते नहीं
हो सरल अथवा कठिन हो रास्ता कर्म वीरों को न इससे वास्ता बढ़ चले तो अंत तक ही बढ़ चले,
कठिनतर गिरिश्रृंग ऊपर चढ़ चले
कठिन पंथ को देख मुस्काते सदा संकटों के बीच वे गाते सदा
है असंभव कुछ नहीं उनके लिए, सरल संभव कर दिखाते वे सदा यह असंभव कायरों का शब्द है- कहा था
नेपोलियन ने एक दिन सच बताऊँ जिन्दगी ही व्यर्थ है दर्प बिन, उत्साह बिन और शक्ति बिन.

प्रश्न

- (1) : (क) कविता में वीरों की जिन विशेषताओं पर बल दिया गया है, उनमें तीन प्रमुख विशेषताएं क्या-क्या हैं?
- (2) कर्म वीरों को किस बात से कोई लेना देना नहीं होता है? और क्यों?
- (3) किन विशेषताओं के बिना जीवन व्यर्थ है और क्यों ?
- (4) उपर्युक्त काव्यांश के लिए उपयुक्त शीर्षक दीजिए.
- (5) 'गिरिश्रृंग' तथा 'दर्प' शब्दों का अर्थ स्पष्ट कीजिए

प्रश्न 2 : निम्नलिखित गद्यांश को पढ़कर दिए गए प्रश्नों के उत्तर दें।

$2 \times 5 = 10$

कोलंबियाई लेखक गेब्रियल गरसिया मार्क्वेज का जाना उन लाखों पाठकों के लिए स्तब्ध कर देने वाला है जो श्रेष्ठ साहित्य के मुरीद हैं। कल्पना और यथार्थ को जिस जादुई अंदाज में उन्होंने पेश किया वह पूरी दुनिया में बेजोड़ हैं। जीवन का सच जैसा जिस रूप में उन्होंने देखा-भोगा, उसे वैसा ही पन्नों पर रख देने में उन्हें महारत हासिल थी। उनके अधिकांश साहित्य में एकांत भी वैसे ही महकता है जैसे जंगल से गुजरते वक्त महुआ की ठहरी हुई सी खुशबू देर तक साथ चले। लोककथाओं की जो विचित्रताएं उनके साहित्य में दिखती हैं, वे उनकी नानी के माध्यम से उन तक पहुंची जो उन्हें बचपन में बड़े शौक से विविध प्रकार की कथाएं सुनाया करती थीं। खुद मार्क्वेज का कहना था कि मैं उन्हें सुन-सुन कर कल्पनाएं किया करता था। भूत-प्रेत मृतात्माओं का जो कुछ भी संचित ज्ञान उनके पास था

वह सब उन्होंने मुझमें उड़ेल दिया था। दूसरे शब्दों में मार्केज़ अपने लेखन की परिपक्वता का समस्त श्रेय नानी के किस्सों-कहानियों को ही देते थे। मार्केज़ के नाना रिपोर्ट्स मार्केज़ कोलंबिया के जनसंघर्ष के साक्षी रहे थे। युद्ध और मार्केज़ के उनके विचारों के कारणों के जनसंघर्षों में मार्केज़ की भागीदारी का गवाह भी था।

मार्केज़ शुरू से ही पढ़ाकू थे। कक्षा में सब उन्हें 'द ओल्ड मैन' के नाम से पुकारा करते थे। खेल के बजाय उनकी रुचि कॉमिक्स बनाने में ज्यादा होती थी। बहुत छोटी उम्र में जबकि उनकी भाषिक क्षमता भी ज्यादा विकसित नहीं थी उन्होंने चित्रकथाएं बनाना शुरू कर दिया था। जिसे देखकर उनके शिक्षक भी चकित रह जाते थे। मात्र 14 वर्ष की उम्र में उन्होंने छात्रवृत्ति हासिल की। स्कूली शिक्षा के उपरांत मार्केज़ पत्रकारिता में अपना करियर बनाना चाहते थे, लेकिन पारिवारिक दबाव के चलते उन्हें अनिच्छा से कानून में प्रवेश लेना पड़ा, हालांकि यह डिग्री उन्होंने कभी हासिल नहीं की क्योंकि कानूनी अध्ययन उन्हें कभी रास नहीं आया। इस बीच उन्होंने स्वतंत्र रूप से पत्रकारिता 1947 में उनकी पहली शॉर्ट स्टोरीज़ बुक प्रकाशित हुई। 1950 में मार्केज़ ने अल हेराल्ड के लिए नियमित कॉलम लिखना आरंभ किया। 1952 में उन्होंने अपना पहला उपन्यास लिखा। 1954 में मार्केज़ अपने शहर बोगाटा लौट आए और एक अखबार में रिपोर्टर और फिल्म समीक्षक के रूप में उन्हें काम मिल गया। उनके लेखकीय जीवन ने जब रफतार पकड़ना आरंभ किया तो फिर वह थमा नहीं बल्कि पुरस्कारों से सम्मानित होता हुआ निर्बाध गति से बह निकला। 1982 में उन्हें साहित्य का नोबल पुरस्कार मिला। मार्केज़ ने अपने लेखन को कभी नहीं रुकने दिया। वह खुद को लेखक मानते थे जो 'फिक्शन' लिखता है।

- (1) मार्केज़ के लेखन की क्या-क्या विशेषताएँ हैं ?
- (2) मार्केज़ अपनी कानून की पढ़ाई पूरी क्यों नहीं कर सके?
- (3) इन शब्दों के अर्थ समझाइए--- मुरीद, छात्रवृत्ति, शार्ट-स्टोरी, जनसंघर्ष
- (4) मार्केज़ अपनी आजीविका के लिए क्या करते थे?
- (5) पंक्ति ' वह खुद को ऐसा पत्रकार मानते थे जो फिक्शन लिखता है।' का भावार्थ लिखिए ।

प्रश्न 3 निम्नलिखित काव्याश को पढ़कर दिए गए प्रश्नों के उत्तर दें ।

“वह आता--

दो टूक कलेजे के करता पछताता

पथ पर आता।

पेट पीठ दोनों मिलकर हैं एक,

चल रहा लकुटिया टेक,

मुट्ठी भर दाने को-- भूख मिटाने को

मुँह फटी पुरानी झोली का फैलाता--

दो टूक कलेजे के करता पछताता पथ पर आता।

साथ दो बच्चे भी हैं सदा हाथ फैलाये,

बायें से वे मलते हुए पेट को चलते,

और दाहिना दया-दृष्टि पाने की ओर बढ़ाये।

भूख से सूख ओठ जब जाते

दाता भाग्य-विधाता से क्या पाते?--

घूँट आँसुओं के पीकर रह जाते।

चाट रहे जूठी पतल वे सभी सड़क पर खड़े हुए,

और झपट लेने को उनसे कुत्ते भी हैं अड़े हुए!”

प्रश्न (क) पंक्ति पेट पीठ दोनों मिलकर हैं एक से कवि का क्या आशय है ? 2

(ख) यहाँ झोली के लिए किन् विशेषणों का प्रयोग का प्रयोग हुआ है।

2

(ग) दाता भाग्य-विधाता किसे कहा गया है।

2

(घ) कविता में प्रयोग किए गए किन्हीं दो मुहावरों का अर्थ बताते हुए उनका वाक्य में प्रयोग कीजिए। 4

(ङ) भिखारी के बच्चों में प्रतियोगिता दिखाकर समाज की किस बुराई की ओर कवि ने संकेत किया है ? 2

प्रश्न 4 : निम्नलिखित गद्यांश को पढ़कर दिए गए प्रश्नों के उत्तर दें । 2×5=10

आदर्श विद्यार्थी वही कहा जा सकता है जिसमें सबसे पहला गुण विनम्रता हो। अपने गुरुजनों के प्रति श्रद्धा का भाव तथा निरंतर ज्ञान प्राप्ति की जिज्ञासा हो। यह विद्यार्थी जीवन की पहली सीढ़ी है। महर्षि दयानंद जी ने स्वामी विरजानंद जी के कठोर व्यवहार को श्रद्धा तथा विनम्रता से सिर झुकाकर सहन किया और गुरु से ज्ञान प्राप्त करने में सफल रहे। अनुशासनप्रिय छात्र का जीवन नियमित होता है। अनुशासित जीवन भविष्य के लिए भी हितकर होता है। परिश्रमी होना विद्यार्थी जीवन का सबसे बड़ा आभूषण है। एकाग्र भाव से, तन्मयतापूर्ण समर्पण के साथ अध्ययन करना उसका प्रमुख धर्म होता है।

(क) आदर्श विद्यार्थी में क्या गुण होने चाहिए?

(ख) महर्षि दयानंद जी के गुरु कौन थे?

(ग) विद्यार्थी जीवन की पहली सीढ़ी क्या होती है?

(घ) विद्यार्थी जीवन का सबसे बड़ा आभूषण क्या होता है?

(ङ) महर्षि दयानंद जी ज्ञान प्राप्त करने में कैसे सफल रहे?

प्रश्न 1. निम्नलिखित काव्यांश को ध्यानपूर्वक पढ़कर पूछे गए प्रश्नों का उत्तर दीजिए— 1×5=5

किस भाँति जीना चाहिए, किस भाँति मरना चाहिए,

सो सब हमें निज पूर्वजों से ज्ञात करना चाहिए।

पद—चिन्ह उनके यत्नपूर्वक खोज लेना चाहिए

निज पूर्व गौरव—दीप को बुझने न देना चाहिए।।

आओ मिलें सब देश—बांधव हार बनकर देश के

साधक बनें सब प्रेम से सुख—शांतिमय उद्देश्य के।

क्या सांप्रदायिक भेद से है ऐक्य मिट सकता, अहो,

बनती नहीं क्या एक माला विविध सुमनों की, कहो।।

प्राचीन हों कि नवीन, छोड़ो रूढ़ियाँ जो हों बुरी,

बनकर विवेकी तुम दिखाओ हंस की—सी चातुरी।

प्राचीन बातें ही भली हैं — यह विचार अलीक है,

जैसी अवस्था हो जहाँ, वैसी व्यवस्था ठीक है।।

मुख से न होकर चित्त से देशानुरागी हो सदा,

हैं, सब स्वेदशी बंधु, उनके दुःख—भागी हो सदा।

देकर उन्हें साहाय्य भरसक सब विपत्ति व्यथा हरो,

निज दुःख से ही दूसरों के दुःख का अनुभव करो।।

प्र.(क) अतीत का गौरव बनाए रखने के लिए कवि हमें क्या परामर्श देता है?

(ख) 'विविध सुमनों की एक माला' का उदाहरण कवि ने क्यों दिया है?

(ग) उन पंक्तियों को उद्धृत कीजिए जिनमें कहा गया है कि पुराना होने से कोई बात अच्छी नहीं हो जाती, हमें विवेकपूर्वक उनकी परख करनी चाहिए

(घ) अपने देशवासियों के साथ हमारा व्यवहार कैसा होना चाहिए?

(ङ) आशय स्पष्ट कीजिए— 'मुख से न होकर चित्त से देशानुरागी हो सदा' ।

प्र. 1 निम्नलिखित पद्यांश को पढ़कर पूछे गए प्रश्नों के उत्तर दीजिए1 -x5=5

तुम नहीं चाहते थे क्या-

फूल खिलें

भौरे गुँजे

तितलियाँ उड़ें ?

नहीं चाहते थे तुम-

शरदाकाश

वसंत की हवा

मंजरियों का महोत्सव ?

कोकिल की कुहू, हिरणों की दौड़ ?

तुम्हें तो पसंद थे भेड़िये

भेड़ियों धीरे जंगलाते आदमी-से धीरे-

समुची हरियाली को धुआँ बनाते विस्फोट !

तुमने ही सबको बना दिया है अंधाबहरा-

आकाशगामी हो गए सब

कोलाहल में डूबे, वाणी! विहीन-

अभी भी समय है

बाकी है भविष्य अभी

खड़े हो जाओ अंधेरे के खिलाफ

वेदमंत्रों के ध्यता-,

पहचानो अपनी धरती

अपना आकाश !!

(क) आतंकी विस्फोटों के क्या क्या परिणाम होते हैं-?1

(ख) आतंकवादियों को धरती के कौन कौन से रूप नहीं लुभाते-? 1

(ग) आशय स्पष्ट कीजिए :

तुम्हें पसंद थे भेड़िये ।

धीरे धीरे जंगलाते आदमी-||1

(घ) 'अब भी समय है' कहकर कवि क्या अपेक्षा करता है?1

(ड) पद्यांश के आधार पर वसंत ऋतु के सौंदर्य का शब्द चित्र अपने शब्दों में प्रस्तुत- कीजिए ।

1

प्र. 2 निम्नलिखित गद्यांश को पढ़कर पूछे गए प्रश्नों के उत्तर दीजिए 15

प्रकृति और व्यक्ति के सम्बन्धों में विकार आ रहा है । व्यक्ति प्रकृति से दूर हो गया है । जनसंख्या विस्फोट से, प्रदूषण के कुप्रभाव से प्रकृति की शोभा पर संकट के बादल मंडराने लगे हैं । ऐसी विपरीत स्थिति में भी प्रकृति का सौंदर्य वसंत के आगमन पर खिल उठता है, विस्मय होता है कि आजकल लोगों को वसन्त के आगमन का भी आभाष नहीं होता । पुष्प बिरंगे फूलों की चटख और महक से वसंती पवन झूम उठता है-वाटिकाओं में रंग-। पुष्प पंखुड़ियों पर तितलियों के नृत्य मन मोह लेते हैं । भ्रमरों का मधुर गुंजन आनंद की वृष्टि करता है । ऋतुराज के स्वागत में आम की डाली पर कोकिला भी मधुर तानें छेड़ती है । मोरनियों के झुंडों से घिरा मोर मस्ती से नाचता है । प्रकृति की यह छटा लोगों को नसीब नहीं होती क्योंकि उनके मन में प्रकृति प्रेम शेष नहीं रहा-। व्यक्ति प्रकृति प्रेम के अभाव में मानसिक दबावों में जी रहा है । अंतवसंत के आगमन पर प्रत्येक व्यक्ति के मन में उनका : स्वागत करने की भावना जागनी चाहिए ।

(क) इस गद्यांश का उपयुक्त शीर्षक लिखिए । 1

(ख) प्रकृति की शोभाश्री पर संकट के बादल क्यों मंडरा रहे हैं ? 2

(ग) विपरीत स्थितियों में भी प्रकृति की विशेषता क्या है ? 2

(घ) लेखक को विस्मय क्यों होता है ? 2

(ङ) 'प्रकृति' की कौन सी छटा लोगों को नसीब नहीं होती-? 2

(च) मानसिक दबावों से छुटकारा पाने की दावा क्या है ? 1

(छ) व्यक्ति किसके अभाव में मानसिक दबावों में जी रहा है ? 1

(ज) प्रकृति और व्यक्ति के सम्बन्धों में क्या अंतर आ रहा है ? 1

(झ) आजकल लोगों को किसका आभाष नहीं होता ? 1

(ञ) पुष्प के कोई दो शब्द पर्यायवाची लिखिए । 2

भारत में सांप्रदायिकता अथवा नई पुरानी पीढ़ी के बदलते जीवन मूल्यविषय पर आलेख लिखिए।

5

प्र. 6 निम्नलिखित में से किसी एक विषय पर फीचर लिखिए 5

(क) 'कहाँ गए वो दिन'

(ख) 'गणतंत्र दिवस का संदेश'।

प्र. 7 निम्नलिखित में से किसी एक पद्यांश को पढ़कर पूछे गए प्रश्नों के उत्तर लिखिए 2

-x 8=4

जिंदगी में जो कुछ भी है, जो भी है

सहर्ष स्वीकारा है;

इसलिए की जो कुछ भी मेरा है

वह तुम्हें प्यारा है ।

गरबीली गरीबी यह, ये गंभीर अनुभव सब

यह विचर वैभव सब

दृढ़ता यह, भीतर की सरिता यह अभिनव सब

मौलिक है, मौलिक है
इसलिए की पलपल में-
जो कुछ भी जाग्रत है, अपलक है! संवेदन तुम्हारा-

- (क) कवि ने क्या सहर्ष स्वीकारा है और क्यों ?
(ख) 'गरीबी' के लिए प्रयुक्त विशेषण का भाव -स्पष्ट कीजिए ?
(ग) 'गरबीली गरीबी' से क्या आशय है ।
(घ) उपर्युक्त पद्यांश किस कविता से लिया है और इसके कवि कौन हैं ?

अथवा

मैं जग जीवन का भार लिए फिरता हूँ
फिर भी जीवन में प्यार लिए फिरता हूँ
कर दिया किसी ने झंकृत जिनको छूकर
मैं साँसों के दो तार लिए फिरता हूँ
मैं स्नेह सुरा का पान किया करता हूँ
जग पूछ रहा उनको, जो जग की गाते,
मैं अपने मन का गान किया करता हूँ ॥

- (क) उपर्युक्त पंक्तियाँ किस कविता से ली गई हैं और इसके लेखक कौन हैं ?
(ख) कवि स्नेह-सुरा का पान कैसे करता है ?
(ग) 'जगजीवन का भार और फिर भी जीवन से प्यार-' यहाँ कवि ने जीवन के सन्दर्भ में यह विरोधी बात क्यों कही हैं ?
(घ) 'जग पूछ रहा उनको जो जग की गाते' से कवि का क्या अभिप्राय है ?

प्रश्न 2. निम्नलिखित गद्यांश को पढ़कर पूछे गए प्रश्नों के उत्तर लिखिए :

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प्रेमचंद की 'रोशनी' कहानी का 'कथावाचक' इंग्लैंड से आई.सी.एस. उत्तीर्ण कर अफसर के रूप में कार्यरत है। उसका विश्वास है कि पश्चिमी सभ्यता, शिक्षा और जीवन शैली से ही भारत का कल्याण होगा और इसकी अशिक्षा, जड़ता, अतीत-पूजा, पत्थर-पेड़-पूजा आदि का अंधकार इसी से दूर होगा, परंतु उसके तूफान में फँसने पर गाँव की एक देहातिन विधवा उसे मार्ग दिखाती है और ध्यान रखती है कि गर्द-गुबार में वह रास्ता न भूल जाए। इस उपकार के बदले वह आई.सी.एस. अफसर से पाँच रूपए भी नहीं लेती। अफसर गाँव के लोगों को जाहिल, मूर्ख और बेखबर मानने की अपनी मूर्खता पर लज्जित होता है और देहाती औरत के साहस, कर्तव्यपालन, स्वाभिमान, सेवाभाव तथा ईश्वर विश्वास आदि को देखकर मान लेता है कि एक देहातिन भी आत्मिक शिक्षा एवं संस्कृति के उच्च स्थान पर बैठी हो सकती है, और इस आत्मिक उन्नयन के लिए पश्चिमी शिक्षा या जीवनशैली की आवश्यकता नहीं होती। प्रेमचंद उस गाँवार, देहाती, अनपढ़ औरत को मनुष्यता के शीर्ष पर प्रतिष्ठित करते हैं जिसके प्रभाव से अंग्रेजी संस्कृति का भक्त और भारतीयता से नाक-भौंह सिकोड़ने वाला अफसर भी एक अच्छा मनुष्य बन जाता

है। प्रेमचंद की यही विशेषता है जो उन्हें अन्य कथाकारों से भिन्न पंक्ति में विशेष स्थान देती है। पढ़े-लिखे और संभ्रांत कहे जाने वाले पात्रों के दंभ को वे अपनी कलम से तार-तार कर देते हैं।

प्र. (क) प्रेमचंद को अन्य कहानीकारों से भिन्न क्यों माना गया है ? 2

(ख) गद्यांश में प्रेमचंद की किस कहानी का उल्लेख है ? 1

(ग) आई.सी.एस. अधिकारी की भारत के बारे में क्या धारणा थी ? 2

(घ) ग्रामीणों के प्रति अफसर की क्या धारणा थी ? 1

(ङ) अंततः उसे ग्रामीण महिला में किन गुणों के दर्शन हुए ? 1

(च) देहातिन के संपर्क में आने के बाद अफसर की विचारधारा में क्या परिवर्तन आया ? 2

(छ) प्रेमचंद उस ग्रामीण महिला को मनुष्यता के शीर्ष पर कैसे बिठाते हैं ? 2

(ज) गद्यांश से दो मुहावरे चुनकर उनका अपने वाक्यों में प्रयोग कीजिए। 2

(झ) गद्यांश से 'इक' और 'ता' प्रत्यय वाले एक-एक शब्द चुनिए ढूँढिए। 1

(ञ) इस वाक्य को कर्मवाच्य में बदलिए – एक देहातिन विधवा उसे मार्ग दिखाती है। 1

प्रश्न 3. निम्नलिखित में से किसी एक विषय पर निबन्ध लिखिए। (लगभग 400 शब्द)

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(क) क्यों पढ़ें हिंदी (ख) भारत में राष्ट्रीय एकता का स्वरूप (ग) कट्टरता : देश की दुश्मन

(घ) पर्यावरण और हम

(ङ.) पश्चिम बंगाल राज्य में चुनावों के दौरान होने वाली हिंसक घटनाएँ और उनके कारण

(च) महिलाओं के प्रति बढ़ती हिंसा के मूल कारण

(छ) विद्यालयी शिक्षा में नैतिक-मूल्यों को स्थापित करने के उपाय

(ज) मेरे सपनों का भारत

(क) अगर मैं प्रधानमंत्री होता

(ख) कंप्यूटर की उपयोगिता

(ग) कथा सम्राट मुंशी प्रेमचंद-

प्रश्न 4 1. अवर सचिव, स्वास्थ्य विभाग, भारत सरकार की ओर से पश्चिम बंगाल राज्य के सचिव, स्वास्थ्य विभाग को राज्य के चिकित्सालयों में शिशुओं की बढ़ती मृत्यु-दर की रोकथाम के लिए किए जा रहे उपायों की विस्तृत रिपोर्ट देने के लिए पत्र लिखिए। 5

2. आर्मी पब्लिक स्कूल मेरठ के कार्यालय अधीक्षक की ओर से भारत संचार निगम लिमिटेड के अधिशाषी अभियंता को अपने कार्यालय के खराब टेलीफोन को यथाशीघ्र ठीक कराने के लिए पत्र लिखिए। 5

3. मुख्य सचिव, गृह-मंत्रालय, की ओर से मुख्य निर्वाचन आयुक्तको आगामी चुनावों में सुरक्षा के लिए उठाए गए कदमों की जानकारी देते हुए को पत्र लिखें 5

4. मुख्य निर्वाचन आयुक्तद्वारा आगामी चुनावों में सुरक्षा के लिए उठाए गए कदमों की जानकारी देने के लिए मुख्य सचिव, गृह-मंत्रालय को पत्र लिखें।

5. बिजली की समुचित आपूर्ति न होने से उत्पन्न समस्याओं का वर्णन करते हुए विद्युत विभाग के प्रबंधक को एक पत्र लिखें।

6. दैनिक जीवन में प्लास्टिक के उपयोग से होने वाली हानियों का उल्लेख करते हुए उस पर पाबंदी लगाने के लिए अपने राज्य के पर्यावरण मंत्री को एक पत्र लिखिए। 5

7. आजकल युवक युवतियों में-‘वेलेंटाइन डे’ मनाने का चलन बढ़ रहा है। उसके पक्ष या विपक्ष में अपने तर्कसम्मत विचार देते हुए किसी समाचार पत्र के संपादक को एक पत्र लिखिए।

8. बस में गुंडों के द्वारा घेर लिए जाने पर एक महिला यात्री की सहायता करने वाले बस-संवाहक के साहस और कर्तव्य-भावना की प्रशंसा करते हुए परिवहन-निगम के मुख्य प्रबंधक को पत्र लिखिए। 5

9. ‘भारत प्रकाशन लिमिटेड’ के वित्ताधिकारी की ओर से एक परिपत्र लिखिए जिसमें कंपनी के सभी कर्मचारियों को निर्देश दिया गया हो कि 31 मार्च, 2019 तक अपने बैंक खाता-संख्या की जानकारी उनके कार्यालय को उपलब्ध न कराने की स्थिति में उनके वेतन का भुगतान नहीं हो सकेगा। 5

2. प्रकरण – जनसंचार माध्यम

प्रश्न 1 संचार शब्द को परिभाषित करिए।

उत्तर : संचार शब्द की उत्पत्ति ‘चर’ शब्द से हुई है। ‘चर’ का अर्थ है – चलना या एक स्थान से दूसरे स्थान तक पहुँचना।

प्रश्न 2 : संचार से क्या अभिप्राय है?

उत्तर : संचार दो या दो से अधिक व्यक्तियों के बीच सूचनाओं, विचारों और भावनाओं का आदान-प्रदान है।

प्रश्न 3 : संचार और जनसंचार के विविध माध्यम कौन-कौन से हैं?

उत्तर : टेलीफोन, इंटरनेट, फ़ैक्स, समाचार-पत्र, रेडियो, टेलीविजन और सिनेमा आदि।

प्रश्न 5 : संचार के तत्त्व कौन-कौन से हैं?

उत्तर : स्रोत, संदेश, शोर, डीकोडिंग, फीडबैक आदि।

प्रश्न 6 : ‘संचार’ के प्रकार कौन-कौन से हैं?

उत्तर : मौखिक और अमौखिक संचार, अंतःवैयक्तिक संचार, अंतर-वैयक्तिक संचार, समूह, समूह संचार, जनसंचार आदि।

प्रश्न 7 : संचार प्रक्रिया की शुरुआत कब होती है?

उत्तर : जब स्रोत या संचारक एक उद्देश्य के साथ अपने किसी विचार, संदेश या भावना को किसी और तक पहुँचाना चाहता है तब संचार की शुरुआत होती है।

प्रश्न 8 : सफल संचार के लिए क्या आवश्यक है?

उत्तर : सफल संचार के लिए आवश्यक है कि संदेशग्रहीता भी भाषा यानी उस कोड से परिचित हो जिसमें अपना संदेश भेज रहे हैं।

प्रश्न 9. : 'डीकोडिंग' का क्या अर्थ है?

उत्तर : 'डीकोडिंग' का अर्थ है – प्राप्त संदेशों में निहित अर्थ को समझने की कोशिश।

प्रश्न 10. 'फीडबैक' से हमें क्या पता चलता है?

उत्तर : फीडबैक से हमें पता चलता है कि संचारक ने जिस अर्थ के साथ संदेश भेजा था, वह उसी अर्थ में प्राप्तकर्ता को मिला है।

प्रश्न 11. : 'शोर' से क्या अभिप्राय है?

उत्तर : संचार-प्रक्रिया में कई प्रकार की बाधाएँ आती हैं, इन बाधाओं को शोर कहते हैं।

प्रश्न 12. : सांकेतिक संचार किसे कहते हैं?

उत्तर : संकेतों द्वारा विचारों का आदान-प्रदान करना ही सांकेतिक संचार कहलाता है।

प्रश्न 13. : अंतर-वैयक्तिक संचार से आप क्या समझते हैं?

उत्तर : जब दो व्यक्ति आपस में आमने-सामने संचार करते हैं तो इसे अंतर-वैयक्तिक संचार कहते हैं।

प्रश्न 14. : साक्षात्कार में कौन-से कौशल की परख होती है?

उत्तर : साक्षात्कार में अंतर-वैयक्तिक कौशल की परख होती है।

प्रश्न 15. : जनसंचार की किसी एक विशेषता को लिखिए।

उत्तर : जनसंचार माध्यमों के जरिए प्रकाशित या प्रसारित संदेशों की प्रकृति सार्वजनिक होती है।

प्रश्न 16. : संचार के प्रमुख कार्य बताइए।

उत्तर : प्राप्ति, नियंत्रण, सूचना, अभिव्यक्ति, सामाजिक सम्पर्क तथा समस्या-समाधान प्रतिक्रिया आदि।

प्रश्न 17. : जनसंचार के प्रमुख प्रमुख कार्यों का उल्लेख कीजिए।

उत्तर : सूचना देना, शिक्षित करना, मनोरंजन करना, एजेंडा तय करना, निगरानी करना, तथा विचार-विमर्श के लिए मंच उपलब्ध कराना।

प्रश्न 18. : संपादकीय विभाग का क्या कार्य है?

उत्तर : खबरों, लेखों तथा फीचरों को व्यवस्थित ढंग से संपादकीय करने का कार्य संपादकीय विभाग का होता है।

प्रश्न 19. : उदंत मार्तण्ड का प्रकाशन कब और कहाँ हुआ ?

उत्तर : साप्ताहिक पत्र उदंत मार्तण्ड 1826 ई. में कोलकाता से जुगल किशोर के संपादकत्व में प्रकाशित हुआ।

प्रश्न 20. : भारत में पत्रकारिता की शुरुआत कब हुई?

उत्तर : भारत में पत्रकारिता की शुरुआत सन् 1780 ई में जेम्स ऑगस्ट हिक्की के 'बंगाल-गजल' से हुई।

प्रश्न 21. : आजादी-पूर्व के प्रमुख पत्रकारों के नाम बताइए।

उत्तर : गणेश शंकर विद्यार्थी, माखनलाल चतुर्वेदी, महावीर प्रसाद द्विवेदी, प्रतापनारायण मिश्र, शिवपूजन सहा, रामवृक्ष बेनीपुरी, बालमुकुन्द गुप्त आदि।

प्रश्न 22. आजादी पूर्व की कुछ प्रमुख पत्र-पत्रिकाओं के नाम बताइए।

उत्तर : केसरी, हिन्दुस्तान, सरस्वती, हंस, कर्मवीर, प्रताप, आज, विशाल भारत आदि।

प्रश्न 23. : रेडियो का आविष्कार कब और किसने किया?

उत्तर : सन् 1895 ई. में जी मार्कोनी ने।

प्रश्न 24 : सिनेमा का आविष्कार कब और किसने किया?

उत्तर : सन् 1883 ई. में थामस अल्वा एडीसन ने।

प्रश्न 25. : जनसंचार का नवीनतम लोकप्रिय साधन क्या है?

उत्तर : इन्टरनेट

प्रश्न 26. : प्रमुख स्टिंग ऑपरेशन कौन से हैं?

उत्तर : तहलका, ऑपरेशन दुर्योधन या चक्रव्यूह,

प्रश्न 27. : पत्रकारिता का मूल तत्व क्या है?

उत्तर : जिज्ञासा और समाचार व्यापक अर्थों में पत्रकारिता का मूल तत्व है।

प्रश्न 28. : पत्रकारिता का सम्बन्ध किससे है?

उत्तर : सूचनाओं का संकलन एवं उनका संपादन कर पाठकों तक पहुँचाना है।

प्रश्न 29 : समाचार में कौन-से तत्व आवश्यक हैं?

उत्तर : नवीनता, जनरुचि, निकटता, प्रभाव,

प्रश्न 30. : संपादन में मुख्य रूप से क्या आवश्यक है?

उत्तर : तथ्यपरकता, वस्तुपरकता, निष्पक्षता तथा संतुलन ।

प्रश्न 31. : समाचार की परिभाषा लिखिए।

उत्तर : समाचार किसी भी ऐसी ताजा घटना, विचार या समस्या की रिपोर्ट है जिसमें अधिक से अधिक लोगों की रुचि हो, और जिसका अधिक से अधिक लोगों पर प्रभाव पड़ रहा हो।

प्रश्न 32. : संपादन का क्या अर्थ है?

उत्तर : किसी सामग्री की अशुद्धियों को दूर कर उसे पठनीय बनाना।

प्रश्न 33. : पत्रकार की बैसाखियाँ किसे कहा जाता है?

उत्तर : विश्वसनीयता, संतुलन, निष्पक्षता तथा स्पष्टता

प्रश्न 34. संपादकीय किसे कहा जाता है?

उत्तर : संपादक जिस पृष्ठ पर विभिन्न घटनाओं और समाचारों पर अपनी राय प्रकट करता है उसे संपादकीय कहते हैं।

प्रश्न 35. पहले पृष्ठ पर प्रकाशित होने वाले हस्ताक्षरित समाचार को क्या कहते हैं?

उत्तर : कार्टून कोना

प्रश्न 36. पत्रकारिता के प्रमुख प्रकार बताइए।

उत्तर : खोजपरक पत्रकारिता, विशेषीकृत पत्रकारिता, वॉचडॉग पत्रकारिता, एडवोकेसी पत्रकारिता, वैकल्पिक मीडिया।

प्रश्न 37. : खोजपरक पत्रकारिता से आप क्या समझते हैं?

उत्तर : ऐसी पत्रकारिता जिसमें गहराई से छानबीन करके ऐसे तथ्यों और सूचनाओं को सामने लाने की कोशिश की जाती है जिन्हें दबाने या छिपाने का प्रयास किया जा रहा हो।

प्रश्न 38. : वॉचडॉग पत्रकारिता से क्या आशय है?

उत्तर : किसी के सरकार के कामकाज पर निगाह रखते हुए किसी गड़बड़ी का पर्दाफाश करना वॉचडॉग पत्रकारिता कहलाती है।

प्रश्न 39. : एडवोकेसी पत्रकारिता क्या है?

उत्तर : किसी खास मुद्दे को उछालकर उसे पक्ष में जनमत बनाने का लगातार अभियान चलाना एडवोकेसी पत्रकारिता कहलाती है।

प्रश्न 40. : वैकल्पिक मीडिया से आप क्या समझते हैं?

उत्तर : जो मीडिया स्थापित व्यवस्था के विकल्प को सामने लाने और उसके अनुकूल वैकल्पिक सोच को अभिव्यक्त करता है, उसे वैकल्पिक मीडिया कहते हैं।

प्रश्न 41. : 'अखबार' शब्द मूल रूप से किस भाषा का शब्द है?

उत्तर : समाचार-पत्र को अरबी में अखबार कहते हैं। इसलिए ऐसा पत्र जिसमें खबरें ही खबरें हो, अखबार कहलाता है।

प्रश्न 42. : अग्रलेख से क्या आशय है?

उत्तर : एक ही संपादकीय स्तम्भ में दो या तीन संपादकीय लेख हों तो पहले को अग्रलेख व अन्य को संपादकीय टिप्पणियां कहते हैं।

प्रश्न 43. : एंकर का क्या अर्थ है? तथा उद्घोषक को हम किस अर्थ में लेते हैं?

उत्तर : किसी टीवी कार्यक्रम को संचालित करने वाला अभिनेता या अभिनेत्री। रेडियो कार्यक्रम शुरू होने से पूर्व कार्यक्रम संबंधी या अन्य आवश्यक घोषणाएँ करने वाला उद्घोषक कहलाता है।

प्रश्न 44. : कतरन (क्लिपिंग) किसे कहते हैं?

उत्तर : संपादकीय लेख, टिप्पणियाँ तैयार करने हेतु विभिन्न पत्र-पत्रिकाओं से काटकर रखी गई कतरनों को क्लिपिंग कहते हैं।

प्रश्न 45. : कवरेज को हम किस अर्थ में लेते हैं?

उत्तर : घटनास्थल पर पहुँचकर समाचारों का संकलन करना और उन्हें प्रकाशित करना कवरेज कहलाता है।

प्रश्न 46. : गजट को परिभाषित कीजिए।

उत्तर : वह सामयिक-पत्र जिसमें सरकारी सूचनाएँ प्रकाशित होती हैं

प्रश्न 47. पत्रकारिता में छः ककार क्या हैं?

उत्तर : पत्रकार क्लिंग ने समाचार संकलन के लिए पाँच डब्ल्यू व एक एच का सिद्धांत दिया, इसे ही हिन्दी में छः ककार का सिद्धांत कहते हैं। ये ककार हैं— कहाँ, कब, क्या, किसने, क्यों और कैसे।

प्रश्न 48. : टाइप के कितने अंग हैं?

उत्तर : टाइप के 10 अंग हैं— काउंटर, बॉडी, सेरिफ, फेस, बिअर्ड, शोल्डर, पिन, निक, गूव, फुट।

प्रश्न 49. : टेलीप्रिंटर का कार्य क्या है?

उत्तर : विद्युत-चालित मशीन जिसकी सहायता से संवाद समितियों के समाचार, अखबार के कार्यालय तक मशीन पर चढ़े कागज पर स्वतः टाइप होकर पहुँचते हैं।

प्रश्न 50. : 'डमी' शब्द की व्याख्या प्रस्तुत कीजिए।

उत्तर : इसे ले-आउट भी कहते हैं, पत्र के पूरे आकार या छोटे आकार वाले कागज जिन पर समाचारों, चित्रों, विज्ञापनों की स्थिति की रूपरेखा दी जाती है।

प्रश्न 51. : डेटलाइन किसे कहते हैं?

उत्तर : प्रत्येक समाचार के शीर्षक के बाद और इंट्रो से पहले उस समाचार का स्थान व तारीख दी जाती है, उसे डेटलाइन कहते हैं।

प्रश्न 52. : तड़ित समाचार (फ्लैश) से आप क्या समझते हैं?

उत्तर : किसी विशेष समाचार का पूरा विवरण देने में देर लगने की स्थिति में उस समाचार का संक्षिप्त रूप, न्यूज एजेंसी , पत्र या रेडियो को दिया जाता है, इसे फ्लैश कहते हैं।

प्रश्न 53. : पीत पत्रकारिता (यलो जर्नलिज्म) किसे कहते हैं?

उत्तर : कतिपय समाचार-पत्र सनसनीखेज खबरों और व्यक्ति-परक चरित्र-हनन जैसे समाचारों को अधिक महत्व देते हैं, ऐसी प्रवृत्ति को पीत पत्रकारिता कहते हैं।

प्रश्न 54. : प्रिंट लाइन को परिभाषित कीजिए।

उत्तर : प्रत्येक समाचार-पत्र या पत्रिका में संपादक, प्रकाशक और मुद्रक का नाम अनिवार्य रूप से प्रकाशित किया जाता है, इस विवरण को ही प्रिंट लाइन कहते हैं।

प्रश्न 55. : 'फिलर' पर टिप्पणी कीजिए।

उत्तर : वह छोटा-छोटा मैटर जो मेक-अप में खाली स्थान बचने पर उसे भरने के काम आता है।

प्रश्न 56.: फीचर किसे कहते हैं?

उत्तर : किसी रोचक विषय पर मनोरंजक शैली में लिखा गया लेख फीचर कहलाता है।

प्रश्न 57. : फॉलोअप क्या होता है?

उत्तर : गत दिवस के अधूरे समाचार की अगली और नवीन जानकारी का प्रस्तुतीकरण ही फॉलोअप है।

प्रश्न 58. : वाइ-लाइन क्या है?

उत्तर : संवाद के ऊपर दिया जाने वाला संवाददाता का नाम।

प्रश्न 59. : रि-पंच के बारे में लिखिये।

उत्तर : किसी समाचार का भेजने वाले केन्द्र से पुनःप्रेषण।

प्रश्न 60. : लाइन ब्लॉक क्या है?

उत्तर : लाइनों से बने चित्र का ब्लॉक।

प्रश्न 61. : लीड क्या है?

उत्तर : समाचार का मुख्य बिंदु जिसे पहले पैरा में दिया जाता है। ?

प्रश्न 62. : लेड क्या है?

उत्तर : दो पंक्तियों के बीच जो स्पेस डाला जाता है वही लेड कहलाता है।

प्रश्न 63. : विज्ञापन एजेंसी का क्या कार्य है?

उत्तर : ऐसी संस्था जो विज्ञापनदाताओं से उचित रकम पर विज्ञापन लेकर उसे तैयार करवाकर उचित माध्यमों को भेजती है।

प्रश्न 64. : शेड्यूल क्या है?

उत्तर : महत्वपूर्ण समाचारों की सूची ही शेड्यूल है।

प्रश्न 65. : सर्वेक्षण (सबिंग) के विषय में बताइए।

उत्तर : किसी समाचार या लेख को इस प्रकार संक्षिप्त करना कि समाचार या लेख के सभी मुख्य अंश उसमें आ जाएँ।

प्रश्न 66. : संपादन के विषय लिखिए।

उत्तर : संपादन फिल्म निर्माण की एक रचनात्मक प्रक्रिया है। इसमें किसी फिल्म के शूट किए गए दृश्यों को कहानी के अनुसार कलात्मक ढंग से जोड़ा जाता है। ध्वनि एवं संगीत भी संपादन के अंतर्गत डाली जाती है।

प्रश्न 67 समय सीमा के विषय में लिखिए।

उत्तर : किसी संस्करण के लिए वह अंतिम समय—सीमा जब तक मुद्रण विभाग द्वारा कंपोजिंग हेतु मैटर स्वीकार किया जाता है।

प्रश्न 68 स्टैंडिंग मैटर के विषय में आप क्या जानते हैं?

उत्तर : भविष्य में पुनः छापने के लिए रोका गया कंपोज्ड मैटर।

प्रश्न 69 स्तंभ को परिभाषित कीजिए।

उत्तर : पत्र—पत्रिका के पृष्ठ का वह भाग या किसी विशेष विषय के लिए निर्धारित स्थान को स्तंभ के रूप में जानते हैं।

प्रश्न 70 फ्रीलांसर या स्वतंत्र पत्रकार किसे कहते हैं?

उत्तर : फ्रीलांसर या स्वतंत्र पत्रकार उन्हें कहते हैं जिनका किसी विशेष एक समाचार पत्र से संबंध नहीं होता। ऐसे पत्रकार भुगतान के आधार पर कार्य करते हैं।

प्रश्न 71 हेड रूल से क्या आशय है?

उत्तर : वह रेखा जो पृष्ठ के ऊपर क्षैतिज डाली जाती है ताकि नीचे का मैटर तारीख और संख्या आदि से समाचार पत्र का नाम अलग रहे।

प्रश्न 72 फीडबैक किसे कहते हैं?

उत्तर— संचार प्रक्रिया में संदेश को प्राप्त करने वाला जो सकारात्मक या नकारात्मक प्रतिक्रिया करता है उसे फीडबैक कहते हैं।

प्रश्न 73 पत्रकारिता के पहलुओं का उल्लेख कीजिए।

उत्तर— पत्रकारिता के तीन पहलु हैं —

1. समाचारों को संकलित करना।
2. उन्हें संपादित कर छपने लायक बनाना।
3. पत्र या पत्रिका के रूप में छापकर पाठकों तक पहुँचाना।

प्रश्न 74 किन्हीं दो समाचार एजेंसियों के नाम लिखिए।

उत्तर : 1. पी. टी. आई. 2. भाषा 3. यू. एन. आई. 4. यूनिवार्ता

प्रश्न 75 संपादकीय के प्रमुख सिद्धांत लिखिए।

- उत्तर :
1. तथ्यों की शुद्धता
 2. वस्तुपरकता
 3. निष्पक्षता
 4. संतुलन
 5. स्रोत

प्रश्न 76 पूर्णकालिक पत्रकार कौन होता है?

उत्तर : ऐसा पत्रकार जो किसी समाचार संगठन में काम करता है और नियमित वेतन पाता है उसे पूर्णकालिक पत्रकार कहा जाता है।

प्रश्न 77 संवाददाता या रिपोर्टर किसे कहते हैं?

उत्तर : अखबारों में समाचार लिखने वालों को संवाददाता या रिपोर्टर कहते हैं।

प्रश्न 78 अंशकालिक पत्रकार से आप क्या समझते हो?

उत्तर : सीमित या कम समय के लिए काम करने वाले पत्रकार को अंशकालिक पत्रकार कहा जाता है। इन्हें प्रकाशित सामग्री के आधार पर पारिश्रमिक दिया जाता है।

प्रश्न 79. : समाचार-लेखन की दो शैलियाँ कौन-कौन सी हैं?

उत्तर : 1. **सीधा पिरामिड शैली**— इसमें समाचारों के सबसे महत्वपूर्ण तथ्य को पहले पैराग्राफ में, उससे कम महत्व की सूचना या तथ्य की जानकारी उसक बाद दी जाती है।

2. **उल्टा पिरामिड शैली** : यह शैली समाचारों का ऐसा ढाँचा है, जिसमें आधार ऊपर और शीर्ष नीचे होता है उसमें समाचारों का क्रम होता है — समापन, बॉडी और मुखड़ा। यह सबसे लोकप्रिय और बुनियादी शैली है।

प्रश्न 80. : डेस्क से क्या आशय है?

समाचार माध्यमों में डेस्क का आशय संपादन से होता है। समाचार माध्यमों में मोटे तौर पर संपादकीय कक्ष, डेस्क और रिपोर्टिंग में बँटा होता है। डेस्क पर समाचारों को संपादित कद अपने योग्य बनाया जाता है।

अभ्यास कार्य

अभ्यास हेतु प्रश्न-कोश :-

1. जनसंचार और समूह संचार का अंतर स्पष्ट कीजिए ?
2. कूटवाचन से आप क्या समझते हैं ?
3. कूटीकरण किसे कहते हैं?
4. संचारक की भूमिका पर प्रकाश डालिए ।
5. फीडबैक से आप क्या समझते हैं ?
6. शोर से क्या तात्पर्य है ?
7. औपचारिक संगठन से आप क्या समझते हैं ?
8. सनसनीखेज समाचारों से सम्बंधित पत्रकारिता को क्या कहते हैं?
9. कोई घटना समाचार कैसे बनती है ?
10. संपादकीय पृष्ठ से आप क्या समझते हैं ?
11. मीडिया की भाषा में द्वारपाल किसे कहते हैं ?
12. पत्रकारिता के विकास में कौन-सा मूल भाव सक्रिय रहता है ?
13. कोई घटना समाचार कैसे बनती है ?
14. सूचनाओं का संकलन, संपादन कर पाठकों तक पहुँचाने की क्रिया को क्या कहते हैं ?
15. सम्पादकीय में सम्पादक का नाम क्यों नहीं लिखा जाता ?
16. निम्न के बारे में लिखिए –
 - (क) डेड लाइन
 - (ख) फ्लैश/ब्रेकिंग न्यूज
 - (ग) गाइड लाइन
 - (घ) लीड
 - (ङ) भारत का पहला समाचार पत्र कौन सा था ?
 - (च) भारत की पहली बोलती फिल्म कौन सी थी-?
 - (छ) भारत का पहला हिन्दीसा था-समाचार पत्र कौन-?
 - (ज) जनसंचार के माध्यम कौनकौन से हैं-?
 - (झ) डेडलाइन क्या है ?

3 .प्रकरण : पत्र-लेखन

विचारों, भावों, संदेशों एवं सूचनाओं के संप्रेषण के लिए पत्र सहज, सरल तथा पारंपरिक माध्यम है। पत्र अनेक प्रकार के हो सकते हैं, पर प्रायः परीक्षाओं में शिकायती-पत्र, आवेदन-पत्र तथा संपादक के नाम पत्र पूछे जाते हैं।

पत्र प्रारूप

सेवा में ,
संस्था प्रमुख
(प्रश्न-पत्र के अनुसार)

विषय-

महोदय;

निवेदन है कि ,

.....
.....
.....

धन्यवाद सहित

भवदीय
आवेदन कर्ता
पता सहित
हस्ताक्षर

दिनांक :-