

**Paper 10– Cost & Management Accounting  
and  
Financial Management**



## Paper-10: - Cost & Management Accounting and Financial Management

Full Marks: 100

Time allowed:3 hours

This paper has been divided into two Parts A & B, each carrying 50 marks.  
Further each Part has been divided into two sections each.

### Part-A (COST & MANAGEMENT ACCOUNTING)

(50 Marks)

#### Section-I

Answer the following questions.

1.(a) Choose the most Appropriate alternative for the following (**You may write only the Roman numeral and the alphabet chosen for your answer**); 1 X 6 =6

(i) Division Accounting is divided into

- (a) 2
- (b) **3**
- (c) 4
- (d) None of these

(ii) Contribution margin is known as,

- (a) Net income
- (b) **Gross margin**
- (c) Net profit
- (d) None of these

(iii) The P/V ratio of a product is 0.4 and the selling price is 40 per unit. The marginal cost of the product would be

- (a) 8
- (b) 20
- (c) **24**
- (d) 16

(iv) Budget period depends upon....

- (a) The type of budget
- (b) The nature of business
- (c) The length of trade Cycle
- (d) **All of these**

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- (v) Which of the following operating measures would a manager want to see decreasing over time?
- Merchandise inventory turnover
  - Total quality cost**
  - Percentage of on-time deliveries
  - Finished goods inventory turnover.

- (b)** Match the statement under Column I with the most appropriate statement under Column II (you may opt to write only the numeral and the matched alphabet instead of copying the contents into the answer book): **1X4=4**

	Column I		Column II
1	Variance Analysis	(A)	Definite Period
2	Budget is prepared for a	(B)	Avoidable Fixed Cost/PV ratio
3	Breakeven Point	(C)	Difference between Standard and Actual Cost
4	Shut down Point	(D)	Fixed Cost/PV ratio

**Answer:**

(i) C	(ii) A	(iii) D	(iv) B
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- (c)** Statement whether the following statement are True or False (You may write only the Roman numeral and whether True or False without Copying the Statement into answer book); **1X4=4**

- At breakeven point margin of safety is nil.
- It is optional for a company to have financial accounting.
- Zero based Budgeting cannot be used for decision making.
- Cash Budget Shows the expected sources and utilization of cash.

**Answer:**

(i) True	(ii) False	(iii) False	(iv) True
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## Section II

- 2(a)** A mobile manufacturing company finds that while it costs ₹ 12.50 each to make component X-2870, the same is available in the market ₹ 11.50 with an assurance continued supply. The Break down of cost is:

Direct Material	₹ 5.50
Direct Labour	₹ 3.50
Other variables	₹ 1.00
Depreciation and fixed cost	₹ 2.50
<b>Total</b>	<b>₹ 12.50</b>

- (i) Should you make or buy

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(ii) What would be your decision if the supplier offers the component at ₹ 9.70

[6]

**(b)** From the following data calculate:

(1) B.E.P expressed in amount of sales (₹)

(2) Number of units that must be sold to earn a profit of ₹ 90,000 per year

(3) How many units must be sold to earn a net income of 10% sales.

Sales price ₹ 30 per unit; variable manufacturing costs ₹ 16.50 p.u; fixed factory overheads ₹ 10,80,000 p.a selling costs ₹ 4.50 p.u. Fixed Selling costs ₹ 5,04,000 per year.

[6]

**Answer:2(a)**

Calculation of Marginal Cost of Component X- 2870

	Per Unit (₹)
Direct Material	₹ 5.50
Direct Labour	₹ 3.50
Other variables	₹ 1.00
Marginal Cost	₹ 10.00

(i) Since the marginal cost per unit of 10.00 is lower than the market price of 11.50. It is recommended to manufacture the component in the factory.

(ii) Since the purchase price of 9.70 is lower than the marginal cost. The component should be bought from outside supplier provided proper quality and regular supply are guaranteed.

**2(b)**

Contribution p.u = Selling price p.u – Variable cost p.u (Direct labour + other variable)

$$= 30(16.50 + 4.50) = 9$$

$$\text{BEP in units} = (5,04,000 + 10,80,000) / 9 = 1,76,000$$

$$1) \text{ BEP sales} = 1,76,000 \times 30 = 52,80,000$$

$$2) \text{ No. of units to be sold} = (15,84,000 + 90,000) / 9 = 1,86,000$$

3) Let 'S' be the no. of units required

$$\text{Desired profit} = 30S \times 10\% = 3S$$

$$\text{Sales} = S \times 30 = 30S$$

$$\text{Required units} = (\text{F.C.} + \text{Desired Profit}) / \text{Contribution per unit}$$

$$S = (15,84,000 + 3S) / 9$$

$$6S = 15,84,000 = 2,64,000$$

**3(a)** A Co. Manufacturing two products operates a standard costing system. The standard OH content of each product in cost center 101 is.

Product A ₹ 4.80 (8 direct labour hours @ 60p. per hour)

Product B ₹ 3.60 (6 direct labour hour @ 60 p. per hour)

The rate of 60p. per hour is arrived at as follows:

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Budgeted OH	₹ 1,140
Budgeted Direct labour hour	1,900
Output of product A	100 units
Output of product B	200 units
No opening or closing stock	
Actual direct labour hours worked	2,320
Actual OH incurred	₹1,280

- (i) you are required to calculate total OH for the month.  
(ii) Show division into: 1) expenditure 2) Volume 3) efficiency Variances.

[6]

**(b)** The Cost accountant of a Co .was given the following information regarding the OHs for Feb,2019

- a. Overhead Cost Variance ₹ 2,800
- b .Overhead Volume Variance ₹2,000 (A)
- c. Budgeted Hours for Feb, 2019: 1,200 Hours
- d. Budgeted OH for Feb, 2013: ₹ 12,000
- e. Actual Rate of Recovery of OH ₹16 per hour

You are required to assist him in computing the following for Feb, 2019

1. OHs expenditure Variance
2. Actual OH's incurred
3. Actual Hours for Actual Production
4. OHs Capacity Variance
5. OHs efficiency Variance
6. Standard Hours for Actual Production

[6]

**Answer: 3(a)** Computation of Required Values

SRSH(1)( ₹)	SRAH(2)( ₹)	SRBH(3)( ₹)	ARAH(4)( ₹)
$0.6 \times 2,000 = ₹ 1,200$	$0.6 \times 2,320 = ₹ 1,392$	$0.6 \times 1900 = ₹ 1,140$	₹ 1,280

$SH = (100 \times 8) + (200 \times 6) = 2,000$  hrs.

where

- (1) SRAH = Standard Cost of Standard Fixed overhead = ₹1,200
- (2) SRAH = Standard Cost of Actual overhead = ₹1,392
- (3) SRBH = Budgeted overhead = ₹1,140
- (4) ARAH = Actual overheads = ₹ 1,280

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Computation of Required Variances:

- a. FOH efficiency Variance = (1) - (2) = ₹ 192 (A)
- b. FOH Capacity Variance = (2) - (3) = ₹ 252 (F)
- c. FOH Volume Variance = (1) - (3) = ₹ 60 (F)
- d. FOH budget Variance = (3) - (4) = ₹ 140 (A)
- e. FOH Cost Variance = (1) - (4) = ₹ 80 (A)

**(b)**

SRSH(1)()	SRAH(2)()	SRBH(3)()	ARAH(4)()
10 X 1,000 = 10,000	10 X 800 = 8,000	10 X 1,200 = 12,000	16 X 800 = 12,800

1. SRAH - SRBH = Volume Variance

$$\text{SRSH} - 12,000 = 2,000$$

$$\text{SRAH} = 10,000 \text{ or } \text{SH} = 10,000 / 10 = 1,000$$

2. SRSH - ARAH = Cost Variance

$$10,000 - \text{ARAH} = 2,800$$

$$\text{ARAH} = 12,800$$

a. Overhead Expenditure Variance = 12,000 - 12,800 = ₹ 800 (A)

b. Actual OH's incurred = ₹ 12,800

c. Actual Hours for Actual Production = 800 hours

d. Overheads Capacity Variance = 8,000 - 12,000 = ₹ 4,000

e. Overheads Efficiency Variance = 10,000 - 8,000 = ₹ 2,000

f. Standard Hours for Actual Production = 1,000 hours

**4(a)** The profit for the year of Push on Ltd. works out 12.5% of the capital employed and the relevant figures are as under:

	(₹)
Sales	7,50,000
Direct Materials	3,75,000
Direct Labour	1,50,000
Variable Overheads	60,000
Capital employed	6,00,000

The new sales manager who has joined the company recently estimates for the next year a profit of about 23% on capital employed, provided the volume of sales is increased by 10% and simultaneously there is an increase in selling price of 4% and overall cost reduction in all the elements of cost by 2%.

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Find out by computing in detail the cost profit for the next year, whether the proposal of sales manager can be adopted. [6]

**(b)** The learning curve as a management accounting has now become or going tool in industry, for its application are almost unlimited. When it is used correctly, it can lead to increase business and higher profits; when use without proper knowledge, it can lead to lost business and bankruptcy. State precisely

- (i) your understanding of the learning curve
- (ii) The theory of learning curve
- (iii) The areas where learning curves may assist in management accounting; and
- (iv) Illustrate the use of learning curves for calculating the expected average units cost of making.
  - a) 4 machines
  - b) 8 machines

Using the data below:

Direct labour need to make first machine	1,000 hrs
Learning curve	90%
Direct Labour Cost	₹ 15 per hour
Direct materials cost	₹ 1,50,000
Fixed cost for either size orders	₹ 60,000

[6]

**Answer: 4(a)**

Computation of Fixed Expenses

Particulars	(₹)
Sales	7,50,000
Less: Profit (6,00,000 X 12.5%)	75,000
Total Cost	6,75,000
Less: All costs other than Fixed cost	5,85,000
Fixed Cost	90,000

### Statement showing Computation of Profit If Salesman's Proposal is Adopted

Particulars	(₹)
(i) Sales (7,50,000 X 110% X 104%)	8,58,000
(ii) Variable Cost:	
Direct Material (3,75,000 X 110% X 98%)	4,04,250
Direct Labour (1,50,000 X 110% X 98%)	1,61,700
Variable overheads (60,000 X 110% X 98%)	64,680
	6,30,630
(iii) Contribution (i-ii)	2,27,370
(iv) Fixed Cost (90,000 X 98%)	88,200
(V) Profit	1,39,170

**(b)**

**Statement showing computation of cost of making 4 machines & 8 Machines:**

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No of Machine	Average time Hours	Labour Cost (₹)	Material (₹)	Fixed Cost (₹)	Total (₹)
1	1,000	15,000	1,50,000	60,000	2,25,000
2	900	13,500	1,50,000	30,000	1,93,500
4	810	12,150	1,50,000	15,000	1,77,150
8	729	10,935	1,50,000	7,500	1,68,435

**Average cost of making 4 Machines ₹ 1,77,150**

**Average cost of making 8 Machines ₹ 1,68,435**

**5. Write short notes on any three out of the following :**

**4X3=12**

- (i) Practical application of Differential Costs.
- (ii) Performance Budgeting
- (iii) Limitations of Uniform Costing
- (iv) Distinctive Features of Learning Curve Theory.

**Answer:**

**5(i) Practical Application of Differential Costs:**

They are useful in managerial decisions, which are enumerated below:

- (a) Determination of most profitable levels of production and price.
- (b) Acceptance of offer at a lower price or offering a quotation at lower selling price in order to increase capacity.
- (c) It is used to decide whether it will be more profitable to sell a product as it is or to process it further into a different product to be sold at an increased price.
- (d) Determining the suitable price at which raw material may be purchased.
- (e) Decision of adding a new product or business segment.
- (f) Discontinuing a product or business segment in order to avoid or reduce the present loss or increase profit.
- (g) Changing the product mix. (viii) Make or buy decisions.
- (h) Decision regarding alternative capital investment and plant replacement.
- (i) Decision regarding change in method of production.

**(ii) Performance Budgeting:**

Performance Budgeting is synonymous with Responsibility Accounting which means thus the responsibility of various levels of management is predetermined in terms of output or result keeping in view the authority vested with them. The main concepts of such a system are enumerated below:

- (a) It is based on a classification of managerial level for the purpose of establishing a budget for each level. The individual in charge of that level should be made responsible and held accountable for its performance over a given period of time.
- (b) The starting point of the performance budgeting system rests with the organization chart in which the spheres of jurisdiction have been determined. Authority leads to the responsibility for certain costs and expenses which are forecast or present in the budget with the knowledge of the manager concerned.
- (c) The costs in each individual's or department's budget should be limited to the cost controllable by him.
- (d) The person concerned should have the authority to bear the responsibility.

**(iii) Limitations of Uniform Costing:**

- (a) Uniform costing presumes the application of same principles and methods of Costing in each of the member firms. But individual units generally differ in respect of certain key factors and methods.
- (b) For smaller units the cost of installation and operation of uniform Costing System may be more than the benefits derived by them.
- (c) Uniform costing may create conditions that are likely to develop monopolistic tendencies within the industry. Prices may be raised artificially and supplies curtailed.
- (d) If complete agreement between the members is not forthcoming, the statistics presented cannot be relied upon. This weakens the uniform Costing System and reduces its usefulness.

**(iv) Distinctive Features of Learning Curve Theory**

- (i) Learning curve is not a cost reduction technique. It is a naturally occurring human phenomenon.
- (ii) It is a human characteristic that a person engaged in repetitive task will improve his performance over time.
- (iii) In the initial stage of production, generally the workers do not have the confidence of completing the job successfully. When they produce a few units, they gain confidence. People learn from errors.
- (iv) When the workers produce more and more units, they come to know the problems and their reasons. Now they are able to avoid the problems.
- (v) The workers are able to find the new methods of doing the job; they are able to complete task in less time.
- (vi) Better equipments and tools are developed.
- (vii) Better product designs lead to increased efficiency.

**Part B  
(Financial Management)  
(50 Marks)  
Section III**

**6. Answer the following questions:**

**(a) Choose the correct answer from the given four alternatives:**

**[1×6=6]**

- (i) \_\_\_\_\_ reflects the impact of change in sales on the level of operating profits of the firm.
- (A) **Operating Leverage**
- (B) Financial Leverage
- (C) Combined Leverage
- (D) None of the above
- (i) Which one of the following activities is outside the purview of dividend decision in financial management?
- (A) Identification of the profit after taxes
- (B) Measurement of the cost of funds**
- (C) Deciding on the pay-out ratio
- (D) Considering issue of bonus shares to equity shareholders
- (ii) Which of the following is a Profitability Ratio?
- (A) Proprietary Ratio
- (B) Debt-Equity Ratio

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**(C) Price-Earning Ratio**

(D) Fixed Asset Ratio

(iii) In cash flow statement, the item of interest is shown in

(A) Operating Activities

(B) Financing Activities

(C) Investing Activities

**(D) Both B and C**

(iv) From the following select one factor which is application of fund.

(a) Issue of share capital

(b) Decrease in working capital

**(c) Increase in working capital**

(d) None of the above

(v) From the enumerated list please select instrument which is not dealt in capital market.

(a) **Commercial Paper**

(b) Debenture

(c) Sweat Equity

(d) None of the above

(b) Match the statement under Column I with the most appropriate statement under Column II (you may opt to write only the numeral and the matched alphabet instead of copying the contents into the answer book): **[1×4=4]**

Column I	Column II
(i) Current Ratio	(A) Dividend Irrelevancy Model
(ii) High risk and high reward projects financing	(B) Bearer instrument
(iii) GDR	(C) Equity Financing
(iv) MM Model	(D) Commitment to meet short term liabilities

**Answer:**

(i) (D)

(ii) (C)

(iii) (B)

(iv) (A)

(c) Statement whether the following statement are True or False (You may write only the Roman numeral and whether True or False without Copying the Statement into answer book);

**[1×4=4]**

(i) The excess of Current Liabilities over Current Assets is known as Net Working Capital.

(ii) Letter of Credit represents short-term unsecured promissory notes issued by firms which enjoy a fairly high credit rating.

(iii) Profitability Index of a project is the ratio of the present value of future net cash inflows to the present value of cash outflows.

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The price of a share of common stock acts as a barometer indicating how well  
(iv) management is doing on behalf of shareholders.

**Answer:**

- (i) False;
- (ii) False;
- (iii) True
- (iv) False.

## Section IV

**Answer any three Question from Q. No 7, 8, 9 and 10. Each Question carries 12 Marks.**

**7.(a)** The following is the summary having a sale of ₹ 32 lakh.

Sales to net worth (times)	2.3
Current debt to net worth (%)	42
Total debt to net worth (%)	75
Current ratio (times)	2.9
Net sales to inventory (times)	4.7
Fixed assets to net worth (%)	53.2

### Proforma Balance Sheet

Net worth	---	Fixed assets	---
Long-term debt	---	Cash	---
Current debt	---	Stock	---
		Sundry debtors	568889
	---		---

You are required to Complete the Performa Balance Sheet.

**[8]**

**7.(b) Classify the following independent items of cash flows under AS-3**

- (I) Cash receipts from future contracts held for trading purpose.
- (II) Cash receipts from repayment of advances to third parties other than a financial enterprise.
- (III) Cash interest received from by a financial enterprise.
- (IV) Cash received from disposal of fixed assets.
- (V) Cash receipts from interests in joint venture.
- (VI) Dividends paid by a non- financial enterprise.
- (VII) Cash payments on account of acquisition of a subsidiary.
- (VIII) Cash flows arising from taxes on income, not specifically identifiable.

**[4]**

**Answer: 7(a)**

Proforma Balance Sheet of the Textile Company as on .....

Liabilities	Amount (₹)	Assets	Amount (₹)
Net Worth	13,91,304	Fixed Assets	7,40,173
Long-Term debt	4,59,130	Cash	4,44,869
Current debt	5,84,348	Stock	6,80,851
		Sundry Debtors	5,68,889

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	24,34,782		24,34,782
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Working Notes:

1. Net worth = ₹ 32,00,000 ÷ 2.3 = ₹ 13,91,304
2. Current debt = (₹ 13,91,304/100) x 42 = ₹ 5,84,348
3. Total debt = (₹13,91,304/100) x 75 = ₹10,43,478
4. Long-term debt = ₹ 10,43,478 - ` 5,84,348 = ₹ 4,59,130
5. Fixed assets = (₹ 13,91,304/1,000) x 532 = ₹ 7,40,173
6. Current assets = ₹ 5,84,348 x 2.9 = ₹16,94,609
7. Inventory = ₹ 32,00,000 ÷ 4.7 = ₹ 6,80,851
8. Cash = ₹16,94,609 - (₹ 6,80,851 + ₹5,68,889) = ₹ 4,44,869

7(b)

Classification of the following independent items of cash flows under AS-3 :

- (I) Cash receipts from future contracts held for trading purpose – **Operating Activities**
- (II) Cash receipts from repayment of advances to third parties other than a financial enterprise – **Investing Activities**
- (III) Cash interest received from by a financial enterprise – **Operating Activities**
- (IV) Cash received from disposal of fixed assets – **Investing Activities**
- (V) Cash receipts from interests in joint venture - **Investing Activities**
- (VI) Dividends paid by a non- financial enterprise – **Financing Activities**
- (VII) Cash payments on account of acquisition of a subsidiary - **Investing Activities**
- (VIII) Cash flows arising from taxes on income, not specifically identifiable - **Operating Activities**

8.(a) S. Ltd. produces a product with the following revenue-cost structure:

	₹ per unit
Raw Material	115
Direct labour	80
Overheads	37
Total cost	232
Profit	58
Selling Price	290

The following additional information is available:

- (i) Average raw materials in stock: one month
- (ii) Average work in-process: half-a-month—Raw Materials 100%, Direct labour 50%,Overheads 50% complete
- (iii) Average finished goods in stock: one month
- (iv) Credit allowed by suppliers: one month
- (v) Credit allowed to debtors: two months (vi)
- (vi) Time lag in payment of wages: half-a-month
- (vii) Overheads: one month
- (viii) One-fourth of sales are on cash basis
- (ix) Cash balance is expected to be ₹ 1,65,000

You are required to prepare a statement showing the Working Capital requirement of the company to finance a level of activity of 60,000 units of annual output. Assume uniform production throughout the year. Wages and overheads accrue uniformly.

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Debtors are to be taken at cost.

[8]

8.(b) The following information is available for ABC & Co.

EBIT	₹11,20,000
Profit before Tax	₹ 3,20,000
Fixed costs	₹ 7,00,000

Calculate % change in EPS if the sales are expected to increase by 5%.

[4]

Answer 8(a)

Statement showing estimate of Working Capital

Particulars		₹
<b>Current Assets:</b>		
Stock of Raw material (60,000 units × 115 × 1/12)		5,75,000
Work-in-progress:		
Raw materials (60,000 units × 115 × 1/12 × 1/2)	2,87,500	
Direct labour (60,000 units × 80 × 1/12 × 1/2 × 1/2)	1,00,000	
Overheads (60,000 units × 37 × 1/12 × 1/2 × 1/2)	46,250	4,33,750
Stock of finished goods (60,000 units × 232 × 1/12)		11,60,000
Debtors (60,000 units × 3/4 × 232 × 2/12)		17,40,000
Cash balance		1,65,000
	(a)	40,73,750
<b>Current Liabilities:</b>		
Creditors for raw material (60,000 units × 115 × 1/12)		5,75,000
Creditors for wages (60,000 units × 80 × 1/12 × 1/2)		2,00,000
Creditors for overheads (60,000 units × 37 × 1/12)		1,85,000
	(b)	9,60,000
<b>Net Working Capital</b>	(a) – (b)	31,13,750
<b>Total Working Capital Requirement</b>		<b>31,13,750</b>

(b)

In order to find out the % change in EPS as a result of % change in sales, the combined leverage should be calculated as follows:

$$\begin{aligned}
 \text{Operating Leverage} &= \text{Contribution/EBIT} \\
 &= ₹ 11,20,000 + ₹ 7,00,000 / 11,20,000 \\
 &= 1.625 \\
 \text{Financial Leverage} &= \text{EBIT/Profit before Tax} \\
 &= ₹ 11,20,000 / 3,20,000 \\
 &= 3.5 \\
 \text{Combined leverage} &= \text{Contribution/ Profit before Tax} = \text{OL} \times \text{FL} \\
 &= 1.625 \times 3.5 = 5.69
 \end{aligned}$$

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The Combined leverage of 5.69 implies that for 1% change in sales level, the % change in EPS would be 5.69%. So, if the sales are expected to increase by 5%, then the % increase in EPS would be  $5 \times 5.69 = 28.45\%$ .

9.(a) The capital structure of J Ltd. is as under:

Particulars	₹
Equity shares @ ` 10 each	100,00,000
9% Preference Shares @ ` 100 each	30,00,000
14% Debentures @ ` 100 each	70,00,000
The market price of these securities are:	
Equity Shares	35 per share
Preference Share	120 per share
Debentures	110 per debenture

Other information are:

- Equity shares have a floatation cost of ` 5 per share. The next year's expected dividend is ₹ 3 with annual growth of 5%. The company pays all earnings in the form of dividends.
- Preference Shares are redeemable at a premium of 10%, have 2% floatation cost and 10 year maturity.
- Debentures are redeemable at par, have 4% floatation and 10 year maturity.
- Corporate tax rate is 30%.

You are required to calculate the weighted average cost of capital using (i) book value weights. [7]

9.(b) ZZZ Co. has four potential projects all with an initial cost of ₹ 15,00,000. The capital budget for the year will only allow the company to take up only one of the three projects. Given the discount rates and the future cash flows of each project, which project should they accept? [5]

Answer:9(a)

$$\begin{aligned}\text{Cost of Capital (K}_e\text{)} &= D/P + G \\ &= 3/(35 - 5) + 0.05 \\ &= 3/30 + 0.05 \\ &= 0.10 + 0.05 \\ &= 0.15 \text{ or } 15\%\end{aligned}$$

$$\begin{aligned}\text{Cost of preference capital (K}_p\text{)} &= \{[9 + (110 - 98)]/10\} / \{(110 + 98) / 2\} \\ &= (9 + 1.2) / 104 \\ &= 10.2 / 104 \\ &= 0.098 \text{ or } 9.8\%\end{aligned}$$

$$\begin{aligned}\text{Cost of Debt (K}_d\text{)} &= [14 (1 - 0.3) + \{(100 - 96)/10\}] / (100 + 96) / 2 \\ &= \{(14 \times 0.7) + 0.4\} / 98\end{aligned}$$

$$= (9.8 + 0.4)/98$$

$$= 10.2/98 = 0.1041 \text{ or } 10.41\%$$

Calculation of WACC using book value weights:

Source of Capital	Book Value (₹)	Weight	Cost	WACC
Equity Shares	1,00,00,000	0.5	0.15	0.075
9% Preference Shares	30,00,000	0.15	0.098	0.0147
14% Debentures	70,00,000	0.35	0.1041	0.0364
	2,00,00,000	1.00		0.1261

9(b)

**Project A**

PV of Annuity of ₹ 3,50,000 for 5 years at 4% rate of discount —  
 $3,50,000 \times 4.452 = ₹ 15,58,200$   
 NPV = ₹15,58,200 – ₹ 15,00,000 = ₹ 58,200

**Project B**

PV of Annuity of ₹4,00,000 for 5 years at 8% rate of discount- $4,00,000 \times 3.993 = 15,97,200$  NPV =  
 ₹ 15,97,200 – ₹ 15,00,000 = ₹ 97,200

**Project C**

PV of Annuity of ₹ 5,00,000 for 5 years at 10% rate of discount- $5,00,000 \times 3.791 = 18,95,500$  NPV  
 = ₹18,95,500 - ₹ 15,00,000 = ₹3,95,500

**Accept Project C**

10. Write short note on any three of the following:

[3×4=12]

- (a) Combined Leverage
- (b) Importance of Cost of Capital in Financial Management
- (c) Foreign Currency Convertible Bonds (FCCBs)
- (d) Marginal Cost of Capital:

**Answer:**

(a) A combination of the operating and financial leverages is the total or Combination Leverage. The operating leverage causes a magnified effect of the change in sales level on the EBIT level and if the financial leverage combined simultaneously, then the change in EBIT will, in turn, have a magnified effect on the EPS. A firm will have wide fluctuations in the EPS for even a small change in the sales level. Thus effect of change in sales level on the EPS is known as combined leverage. Thus Degree of Combined Leverage may be calculated as follows:

$$DCL = \text{Contribution} / \text{Earning after Interest.}$$

(b) The Cost of Capital is very important in Financial Management and plays a crucial role in the following areas:

- (i) Capital budgeting decisions: The cost of capital is used for discounting cash flows under Net Present Value method for investment proposals. So, it is very useful in capital budgeting decisions.
- (ii) Capital structure decisions: An optimal capital is that structure at which the value of the firm is maximum and cost of capital is the lowest. So, cost of capital is crucial in designing optimal capital structure.
- (iii) Evaluation of final Performance: Cost of capital is used to evaluate the financial performance of top management. The actual profitability is compared with the actual cost of capital of funds and if profit is greater than the cost of capital the performance may be said to be satisfactory.
- (iv) Other financial decisions: Cost of capital is also useful in making such other financial decisions as dividend policy, capitalization of profits, making the rights issue, etc.

**(c) Foreign Currency Convertible Bonds (FCCBs):**

The FCCB means bonds issued in accordance with the relevant scheme and subscribed by a non-resident in foreign currency and convertible into ordinary shares of the issuing company in any manner, either in whole or in part, on the basis of any equity related warrants attached to debt instruments. The FCCBs are unsecured, carry a fixed rate of interest and an option for conversion into a fixed number of equity shares of the issuer company. Interest and redemption price (if conversion option is not exercised) is payable in dollars. Interest rates are very low by Indian domestic standards. FCCBs are denominated in any freely convertible foreign currency.

FCCBs have been popular with issuers. Local debt markets can be restrictive in nature with comparatively short maturities and high interest rates. On the other hand, straight equity-issue may cause a dilution in earnings, and certainly a dilution in control, which many shareholders, especially major family shareholders, would find unacceptable. Thus, the low coupon security which defers shareholders dilution for several years can be alternative to an issuer. Foreign investors also prefer FCCBs because of the Dollar denominated servicing, the conversion option and the arbitrage opportunities presented by conversion of the FCCBs into equity at a discount on prevailing Indian market price.

**(d) Marginal Cost of Capital:**

The weighted average cost of capital can be worked out on the basis of marginal cost of capital than the historical costs. The weighted average cost of new or incremental capital is known as the marginal cost of capital. This concept is used in capital budgeting decisions. The marginal cost of capital is derived, when we calculate the weighted average cost of capital using the marginal weights. The marginal cost of capital would rise whenever any component cost increases. The marginal cost of capital should be used as the cut off rate. The average cost of capital should be used to evaluate the impact of the acceptance or rejection of the entire capital expenditure on the value of the firm.