Paper 10- Cost & Management Accounting and Financial Management

Answer to MTP_Intermediate_Syl2016_June2017_Set 1

Paper-10: Cost & Management Accounting and Financial Management

Full Marks: 100 **Time allowed: 3 hours**

PART – A (Cost and Management Accounting)
Section I

1. Answer the following questions:

(a) Choose the correct answer from the given four alternatives. [1x6=6]

(i) The breakeven point is the point at which,
(a) There is no profit, no loss
(b) Contribution margin is equal to total fixed cost
(c) Total fixed cost is equal to total revenue
(d) All of the above.

(ii) 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) ₹ 24
(c) ₹ 20
(d) ₹ 25

(iii) If standard hours are 400 @ ₹ 1 per hour and actual hours are 380 @ ₹1.25 per hour, the labour rate variance is:
(a) ₹ 20 (Favourable)
(b) ₹ 25 (Favourable)
(c) ₹ 100 (Adverse)
(d) ₹ 95 (Adverse)

(iv) The time taken for initial unit of a product is 100 hours. At 80% learning rate what is the total time for 4 units.
(a) 100 hours
(b) 80 hours
(c) 160 hours
(d) 256 hours

(v) Sales ₹4,00,000; Variable Cost ₹ 3,00,000; Fixed Cost ₹ 75,000; Investments ₹ 1,50,000 and desired 20% on investments. What is residual income?
(a) ₹ 25,000
(b) ₹ 30,000
(c) ₹ 20,000
(d) ₹ (5,000)

(vi) Sales in January month ₹ 3,00,000; Credit Sales are 80%; Credit period is 2 months. Amount collected in the month of March is
(a) ₹ 50,000

(b) ₹ 2,40,000
(c) ₹ 40,000
(d) None of the above

(b) Match the statement in Column I with the most appropriate statement in Column II : **[1×4 =4]**

	Column I		Column II
i.	**Inter-firm comparison**	**A**	**Decision Making**
ii.	**Margin of Safety**	**B**	**Difference between Standard and Actual Cost.**
iii.	**Variance Analysis**	**C**	**Profit / PV Ratio**
iv.	**Differential Costing**	**D**	**Technique for evaluating performance.**

(c) State whether the following statements are True or False **[1x4=4]**

(i) Uniform costing is a method of costing.
(ii) A variance may be either favourable or adverse.
(iii) Marginal cost equals to prime cost plus variable overheads.
(iv) Variable Cost is also known as Indirect Cost.

Answer:

(a) <u>Chose the correct answer:</u>

(i) (a) There is no profit, no loss
(ii) (b) ₹24
(iii) (d) ₹95 (Adverse)
(iv) (d) 256 hours
(v) (d) ₹(5,000)
(vi) (b) ₹2,40,000

(b) <u>Matching:</u>

	Column I		Column II
i.	Inter-firm comparison	D	Technique for evaluating performance.
ii.	Margin of Safety	C	Profit / PV Ratio
iii.	Variance Analysis	B	Difference between standard and actual cost
iv.	Differential Costing	A	Decision Making

(c) <u>True and False</u>

(i) False
(ii) True
(iii) False
(iv) False

Section II

Answer any three Question from Q. No. 2, 3, 4 and 5. Each Question carries 12 Marks

2. (a) The following data relate to a manufacturing company:
Plant capacity : 4,00,000 units per annum. Present utilisation : 40%
Actuals for the year 2016 were :

Selling price	**₹50 per unit**	**Variable Manufacturing Costs**	**₹15 per unit**
Material Cost	**20 per unit**	**Fixed Costs**	**27 lakhs**

In order to improve capacity utilisation the following proposals are considered:
Reduce selling price by 10%
Spend additionally ₹ 3 lakhs on sales promotion.
How many units should be sold to earn a profit of ₹ 5 lakhs per year. **[6]**

Answer:

PROPOSAL 1: REDUCTION OF SELLING PRICE BY 10%

New Selling Price (₹ 50 - ₹ 5)		₹45
Less: Variable Costs:		
Materials Cost	₹20	
Variable Manufacturing Cost	15	35
Contribution per unit		10
No. of units to be sold to earn a profit of ₹ 5 lakhs: $\frac{\text{Fixed Costs + Desired Profit}}{\text{contribution per unit}} = \frac{27,00,000 + 5,00,000}{10}$ $= \frac{32,00,000}{10} = 3,20,000$ units		

PROPOSAL 2: Additional Expenditure of ₹3 lakhs on Sales Promotion

New Selling Price		₹50
Less: Variable Costs:		
Materials Cost	₹20	
Variable Manufacturing Cost	15	35
Contribution per unit		15
No. of units to be sold to earn a profit of ₹ 5 lakhs: $\frac{\text{Fixed Costs + Additional Sales Promotion Cost + Desired Profit}}{\text{Contribution per unit}} = \frac{27,00,000 + 3,00,000 + 5,00,000}{15}$ $= \frac{35,00,000}{15} = 2,33,334$ units		

(b) A company produces and markets industrial containers and packing cases. Due to competition, the company proposes to reduce the selling price. If the present level of profit is to be maintained, indicate the number of units to be sold if the proposed reduction in selling price is:
(a) 5%; (b) 10%;

The following additional information is available:

	₹	₹
Present Sales Turnover (30,000 units)		**3,00,000**
Variable Cost (30,000 units)	**1,80,000**	
Fixed Cost	**70,000**	**2,50,000**
Net Profit		**50,000**

[6]

Answer:

Calculation of Contribution

	Present Conditions	Anticipated Condition (Reduction in Selling Price)	
		5% Reduction	10% Reduction
	₹	₹	₹
Selling price per unit	10.00	9.50	9.00
Less: Variable cost per unit (₹1,80,000/ 30,000 units)	6.00	6.00	6.00
	4.00	3.50	3.00

$$\text{Number of units to be sold to earn desired profits} = \frac{\text{Total Fixed Cost} + \text{Desired Profits}}{\text{Contribution Per Unit}}$$

(i) Under present conditions $= \frac{₹70,000 + ₹50,000}{₹4} = 30,000$ units

(ii) At a price reduction of 5% $= \frac{₹70,000 + ₹50,000}{₹3.50}$

(iii) At a price reduction of 10% $= \frac{₹70,000 + ₹50,000}{₹3}$

3. (a) The budgeted sales for one month and the actual results achieved are as under:

Product	Budget			Actual		
	Quantity Nos.	Rate ₹	Amount ₹	Quantity Nos.	Rate ₹	Amount ₹
A	**1,000**	**100**	**1,00,000**	**1,200**	**125**	**1,50,000**
B	**700**	**200**	**1,40,000**	**800**	**150**	**1,20,000**
C	**500**	**300**	**1,50,000**	**600**	**300**	**1,80,000**
D	**300**	**500**	**1,50,000**	**400**	**600**	**2,40,000**
	2,500		**5,40,000**	**3,000**		**6,90,000**

Calculate in respect of each product,

(i) Sales Value Variance

(ii) Sales Price Variance

(iii) Sales Volume Variance

(iv) Sales Mix Variance **[2x4 =8]**

Answer:

Sales Value Variance = Budgeted sales – Actual Sales

= ₹5,40,000 – 6,90,000 = 1,50,000 (Favourable)

Sales Price Variance = Standard sales – Actual Sales

Or	= Actual Qty. × (Std. rate – Actual rate)	
A	= 1,200 × (100 – 125)	= ₹30,000 (F)
B	= 800 × (200 – 150)	= ₹40,000 (A)
C	= 600 × (300 – 300)	= Nil
D	= 400 × (500 – 600)	= ₹40,000 (F)
		30,000 (F)

Sales Volume Variance = Budgeted sales – Standard Sales
Or, Std. rate × (Budgeted Qty. – Actual Qty.)

A	= 100 × (1,000 – 1,200)	= ₹20,000 (F)
B	= 200 × (700 – 800)	= 20,000 (F)
C	= 300 × (500 – 600)	= 30,000 (F)
D	= 500 × (300 – 400)	= 50,000 (F)
		₹1,20,000 (F)

Verification:

Sales Value Variance = Sales price Variance + Sales volume variance
= ₹30,000 (F) + ₹1,20,000 (F)
= ₹1,50,000 (Favorable)

Sales Mix Variance = Revised Standard Sales – Standard Sales
Or = Std. Rate × (Revised Std. Qty. – Actual Qty.)

Revised Std. Qty. $= \frac{\text{Total Actual Mix of Sales}}{\text{Total Standard Mix of Sales}} \times$ Std. Qty.

Sales mix variance:

A = 100 × (1,200 – 1,200)	=	Nil
B = 200 × (840 – 800)	=	8,000 (A)
C = 300 × (600 – 600)	=	Nil
D = 500 × (360 – 400)	=	20,000 (F)
		12,000 (Favorable)

(b) The following details relating to the Product 'X' during the month March, 2016 are available. You are required to compute:

(i) Material Price Variance.

(ii) Labour Rate Variance.

Standard Cost per unit:
Materials 50 kg. @ ₹ 40 per kg.
Labour 400 hrs. @ ₹ 1.00 per hour
Actual Cost for the month:
Material 4,900 kgs. @ 42 per kg.
Labour 39,600 hours @ ₹ 1.10 per hour
Actual production—100 units **[2+2=4]**

Answer:

Standard Cost (SC):	**₹**
Material 100 x 50 kgs. = 5,000 kgs. @ ₹ 40 =	2,00,000
Labour 100 x 400 = 40,000 hrs. @ ₹ 1.00 =	40,000
	2,40,000

Actual Cost (AC)	**₹**
Material 4,900 kgs. @ ₹ 42 =	2,05,800
Labour 39,600 kgs. @ ₹ 1.10 =	43,560
	2,49,360

Material Variances	**₹**

(i) Material Price Variance(MPV)= AQ(SR-AR) = 4,900(40-42)=	9,800 A

Labour Variances	₹
(i) Labour Rate Variance(LRV)=AHP(SR-AR)= 39,600(1.00-1.10) =	3,960 A

4.(a) A company manufactures product - A and product - B during the year ending 31st December, 2016, it is expected to sell 15,000 kg. of product A and 75,000 kg. of product B at ₹ 30 and ₹ 16 per kg. respectively. The direct materials P, Q and R are mixed in the proportion of 3: 5: 2 in the manufacture of product A, Materials Q and R are mixed in the proportion of 1:2 in the manufacture of Product B.

The actual and budget inventories for the year are given below:

		OPENING STOCK Kg.	EXPECTED CLOSING STOCK Kg.	ANTICIPATED COST PER KG. ₹
Material -	**P**	**4,000**	**3,000**	**12**
	Q	**3,000**	**6,000**	**10**
	R	**30,000**	**9,000**	**8**
Product -	**A**	**3,000**	**1,500**	**--**
	B	**4,000**	**4,500**	**--**

Prepare the production Budget and Materials Budget showing the expenditure on purchase of materials for the year ending 31-12-2016. [6]

Answer:

Production Budget for the product A & B

Particulars	Product A	Product B
Sales	15,000	75,000
Add: Closing Stock	1,500	4,500
	16,500	79,500
Less: Opening Stock	3,000	4,000
Production	13,500	75,500

Material purchase budget for the year ending Dec31st 2016

Particulars	P	Q	R	Total
Material required for product A in the ratio of 3:5:2	4,050	6,750	2,700	13,500
Material required for product B in the ratio of 1:2	-------	25,167	50,333	75,500
Total requirement	4,050	31,917	53,033	
Add: Closing stock	3,000	6,000	9,000	
	7,050	37,917	62,033	
Less: Opening stock	4,000	3,000	30,000	
Purchases (in units)	3,050	34,917	32,033	
Cost per kg.	12	10	8	
Total purchase cost (₹)	36,600	3,49,170	2,56,264	6,42,034

(b) A firm received an order to make and supply eight units of standard product which involves intricate labour operations. The first unit was made in 10 hours. It is understood that this type of operations is subject to 80% learning rate. The workers are getting a wages rate of ₹ 12 per hour.

(i) What is the total time and labour cost required to execute the above order?

(ii) If a repeat order of 24 units is also received from the same customer, what is the labour cost necessary for the second order? [6]

Answer:

80% Learning Curve results are given below:

Production (Units)	Cumulative Average Time (hours)	Total Time (hours)
1	10	10
2	8	16
4	6.4	25.6
8	5.12	40.96
16	4.096	65.54
32	3.2768	104.86

Labour time required for first eight units = 40.96 hours

Labour cost required for 8 units = 40.96 hours × ₹ 12/hr = ₹ 491.52

Labour time for 32 units = 104.86 hours

Labour time for first eight units = 40.96 hours

Labour time required for 2nd order for 24 units = 63.90 hours

Labour cost for 24 units = 63.90 hours × ₹ 12/hr = ₹ 766.80

5. Write short note on any three. [3 x 4=12]

(a) Significance of Management Accounting

(b) Objectives Of Intercompany Transfer Pricing

(c) Responsibility Accounting:

(d) Limitations of Inter-firm Comparison

Answer:

(a) Significance of Management Accounting:

The various advantages that accrue out of management accounting are enumerated below:

- **Delegation of Authority:** Now a day the function of management is no longer personal, management accounting helps the organisation in proper delegation of authority for the attainment of the vision and mission of the business.
- **Need of the Management:** Management Accounting plays the role in meeting the need of the management.

- **Qualitative Information:** Management Accounting accumulates the qualitative information so that management would concentrate on the actual issue to deliberate and attain the specific conclusion even for the complex problem.
- **Objective of the Business:** Management Accounting provides measure and reports to the management thereby facilitating in attainment of the objective of the business.

(b) Objectives Of Intercompany Transfer Pricing:

The following are the main objectives of intercompany transfer pricing scheme:

- **To evaluate the current performance and profitability of each individual unit:** This is necessary in order to determine whether a particular unit is competitive and can stand on its working. When the goods are transferred from one department to another, the revenue of one department becomes the cost of another and such inter transfer price affects the reported profits.
- **To improve the profit position:** Intercompany transfer price will make the unit competitive so that it may maximize its profits and contribute to the overall profits of the organisation.
- **To assist in decision making:** Correct intercompany transfer price will make the costs of both the units realistic in order to take decisions relating to such problems as make or buy, sell or process further, choice between alternative methods of production.
- **For accurate estimation of earnings on proposed investment decisions:** When finance is scarce and it is required to determine the allocation of scarce resources between various divisions of the concern taking into consideration their competing claims, then this technique is useful.

(c) Responsibility Accounting: One of the recent developments in the field of management accounting is the responsibility accounting, which is helpful in exercising cost control. Responsibility Accounting is a system of accounting that recognizes various responsibility centers throughout the organization and reflects the plans and actions of each of these centers by assigning particular revenues and costs to the one having the pertinent responsibility. It is also called profitability accounting and activity accounting.

It is a system in which the person holding the supervisory posts as president, function head, foreman, etc are given a report showing the performance of the company or department or section as the case may be. The report will show the data relating to operational results of the area and the items of which he is responsible for control. Responsibility accounting follows the basic principles of any system of cost control like budgetary control and standard costing. It differs only in the sense that it lays emphasis on human beings and fixes responsibilities for individuals. It is based on the belief that control can be exercised by human beings, so responsibilities should be fixed for individuals.

Principles of responsibility accounting are as follows:

- A target is fixed for each department or responsibility center.
- Actual performance is compared with the target.
- The variances from plan are analysed so as to fix the responsibility.
- Corrective action is taken by higher management and is communicated.

(b) Limitations of Inter-firm Comparison:

The practical difficulties that are likely to arise in the implementation of a scheme of inter-firm comparison are:

- The top management may not be convinced of the utility of inter-firm comparison.
- Reluctance to disclose data which a concern considers to be confidential.
- A sense of complacence on the part of the management who may be satisfied with the present level of profits.
- Absence of a proper system of Cost Accounting so that the costing figures supplied may not be relied upon for comparison purposes.
- Non-availability of a suitable base for comparison.

PART – B (Financial Management)
Section III

6. Answer the following questions:

(a) Choose the correct answer from the given four alternatives. [1x6=6]

(i) Current Assets ₹ 20,00,000; Current Liabilities ₹ 10,00,000 and Stock ₹ 2,00,000, then what is liquid ratio?
(a) 2 times
(b) 1.8 times
(c) 1.4 times
(d) None of these

(ii) Annual credit sales ₹ 4,00,000; Average collection period 45 days (assume 360 days in a year). What is Average debtors?
(a) ₹ 60,000
(b) ₹ 74,000
(c) ₹ 50,000
(d) ₹ 4,00,000

(iii) Investment in a project is ₹ 200 lakhs and Net Present Value is ₹ 50 lakhs. Then the amount of inflows is :
(a) ₹ 150 lakhs
(b) ₹ 200 lakhs
(c) ₹ 100 lakhs
(d) ₹ 250 lakhs

(iv) PAT of a company ₹ 100 lakhs and number of equity shares of ₹ 10 each is ₹ 50 lakhs, then EPS is:
(a) ₹ 2
(b) ₹ 1
(c) ₹ 10
(d) None of these

(v) Degree of operating leverage is :
(a) EBIT / EBT
(b) Contribution / EBT
(c) Contribution / EBIT
(d) None of these

(vi) Cost of goods sold is ₹8000 and gross margin is ₹5000 then revenue will be

(a) ₹3,000

(b) ₹5,000

(c) ₹8,000

(d) ₹13,000

(b) Match the statement in Column I with the most appropriate statement in Column II : **[1×4 =4]**

	Column I		Column II
i.	**Cash Flow Statement**	**A**	**Capital Budgeting**
ii.	**Net working capital**	**B**	**Net Sales / Fixed Assets**
iii.	**Pay Back Period**	**C**	**AS – 3**
iv.	**Fixed Assets Turnover Ratio**	**D**	**Current Assets – Current Liabilities**

(c) State whether the following statements are True or False **[1x4=4]**

(i) Ratio Analysis is the only technique of analysis of financial statement.

(ii) The difference between the cash receipts and cash payments is the net cash flow provided by (or used in) operating activities.

(iii) Commercial Paper (CP) is a secured promissory note.

(iv) Investment decisions and capital budgeting are same.

Answer:

(a) Choose the correct alternative:

(i) (B) 1.8 times
(ii) (c) ₹50,000
(iii) (d) ₹250 lakhs
(iv) (d) None of these
(v) (c) Contribution / EBIT
(vi) (d) ₹13,000

(b) Matching

	Column I		Column II
i.	Cash Flow Statement	C	AS – 3
ii.	Net working capital	D	Current Assets – Current Liabilities
iii.	Pay Back Period	A	Capital Budgeting
iv.	Fixed Assets Turnover Ratio	B	Net Sales / Fixed Assets

(c) True & False

(i) False
(ii) True
(iii) False
(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 information is given to you as on 31-03-2016 for a company:

Current Ratio	**2.5**
Liquid Ratio	**1.5**
Fixed Assets (net)	**1,80,000**
Working Capital	**60,000**
Reserves and Surplus	**40,000**
Bank Overdraft (Short term)	**10,000**
Assume that there is no long term loan or fictitious assets.	

Make a statement of proprietary fund and match it with fixed assets and as many details of current assets net of current liabilities. [8]

Answer:

CA/CL = 2.5; CA - CL = 60,000

1.5 CL = 60,000

CL = 60,000/1.5 = 40,000

CA = 60,000 + CL = 1,00,000

Bank OD is not excluded from CL since it is stated to be short term

Quick Ratio = CA - Stock/CL = 1.5

1,00,000 - stock = 1.5 × 40,000 = 60,000

Stock = 40,000

Debtors/ Cash = 60,000

Share Capital = 2,00,000

Liabilities	Amount (₹)	Assets	Amount (₹)
Share Capital	2,00,000	Fixed Assets	1,80,000
Reserves	40,000	**Current Assets:**	
		Stock	40,000
Current Liabilities	40,000	Cash and Debtors	60,000
Total	2,80,000	Total	2,80,000

(b) The Balance Sheet of Magnavision Ltd. as on 31.03.2015 and 31.03.2016 are given below:

Assets	**31.03.2015**	**31.03.2016**
Land & Building	**8,00,000**	**6,40,000**
Investments	**1,00,000**	**1,20,000**
Inventory	**4,80,000**	**4,20,000**
Accounts Receivables	**4,20,000**	**9,10,000**
Cash & Bank Balance	**2,98,000**	**3,94,000**
Total Assets:	**20,98,000**	**24,84,000**
Liabilities		

Share Capital	**9,00,000**	**9,00,000**
Reserves	**6,00,000**	**6,20,000**
Profit and Loss Account	**1,12,000**	**1,36,000**
Term Loan	**Nil**	**5,40,000**
Current Liabilities	**4,86,000**	**2,88,000**
Total Liabilities:	**20,98,000**	**24,84,000**

From the fallowing information, you are required to prepare the Statement of Changes in Working Capital. [4]

Answer:

Magna Vision Ltd.

Statement of changes in Working Capital:

Particulars	31.03.2015	31.06.2016	Increase in Wc	Decrease in WC
Current Assets (A)				60,000
Inventory	4,80,000	4,20,000		
Accounts Receivable	4,20,000	9,10,000	4,90,000	
Cash & Bank Balances	2,98,000	3,94,000	96,000	
	11,98,000	17,24,000	5,26,000	
Current Liabilities (B)	4,86,000	2,88,000	1,98,000	
(A – B)	7,12,000	14,36,000	7,84,000	60,000
Net Increase in WC			7,24,000	

8. (a) A company plans to sell 48000 units next year. The following information is given:

Raw Materials = ₹100(per unit)
Manufacturing expense = ₹30(per unit)
Selling cost = ₹20(per unit)
Selling Price = ₹180 (per unit)
Average Cash balance = ₹1,20,000

The duration at various stages is expected to be as follows:
Raw materials stage 2 months
Work in progress 1 month (Row Materials 100% complete; Manufacturing 25% complete)
Finished goods 1 month
Debtors 1 month
Assume uniform sales of 4000 units per month.
Estimate the gross working capital requirement taking
(i) Debtors at Cost;
(ii) Debtors at Sales Value. [8]

Answer:

(a) Statement of Gross Working Capital

Item	Workings	Amount (₹)
Current Assets		
Raw Materials	4000 × 2 × 100	8,00,000
WIP:		
Materials	4000 × 100 × 100% × 1 month	4,00,000
Manufacturing Expenses	4000 × 30 × 25% × 1 month	30,000

Finished Goods	4000 × 130 × 1 month	5,20,000
Debtors (at cost)	4000 × 150 × 1 month	6,00,000
Cash		1,20,000
Total Gross WC Requirement		24,70,000

If Debtors are at Sales, add profit of ₹30 per unit. Debtors will be 30 × 4,000 = 1,20,000
More than the above figure. i.e. 7,20,000
Then, Gross WC= 25,90,000

Alternative Presentation:

	RM	WIP	FG	Debtors	Total	Working	Amount
RM	2m	1m	1m	1m	5m	5 × 100 × 4000	20,00,000
Mfg. expenses		.25	1	1	2.25 m	2.25 × 4000 × 30	2,70,000
Selling exp				1	1	4000 × 20	80,000
Profit				1	1	4000 × 30	1,20,000
Cash							1,20,000
Total Gross WC(Drs at sales)							25,90,000
Less : Profit Gross WC (Drs at Cost)							1,20,000 24,70,000

(b) Calculate the degree of Operating Leverage and degree of Financial Leverage following firms:

	Firm X
(i) Output (units)	**80000**
(ii) Variable Cost per unit (₹)	**1.50**
(iii) Fixed Cost (₹)	**10,000**
(iv) Interest on Loan Fund (₹)	**6,000**
(v) Selling price per unit (₹)	**2.50**

[4]

Answer:

	FIRM X
Output (Units)	80,000
Selling price period (₹)	2.50
Less : V Cost per unit (₹)	1.50
Cost per unit (₹)	1.00
Total contribution (₹)	80,000
Less : Fixed Cost (₹)	10,000
EBIT	70,000
Less : Interest	6,000
PBT	64,000
	80,000
Degree of I.O.L = $\frac{\text{Cont}}{\text{EBIT}}$	70,000
	=1.14

Degree FL = $\frac{\text{EBIT}}{\text{PBT}}$ $\frac{70,000}{64,000}$ =1.09

Degree of Comb Leverage = $\frac{\text{Cont}}{\text{PBT}}$ $\frac{80,000}{64,000}$ =1.25

9. (a) PQR Ltd. operating income (before interest and tax) is ₹11,25,000. The firm's cost of debts is 10% and currently firm employs ₹37,50,000 of debts. The overall cost of capital of firm is 12%. Calculate cost of equity. [4]

Answer:

Value of the firm (V) = EBIT/ Overall cost of capital (K_o)

= ₹11,25,000/ 12% = ₹93,75,000

Market value of debts (D) = 37,50,000

Market value of equity (S) = V – Debts

= 93,75,000 – 37,50,000 = ₹56,25,000

Cost of Equity (K_e) = (K_o.V – K_d.D) /S

= (0.12 x 93,75,000 – 0.10 x 37,50,000)/ 56,25,000

= 13.33%

(b) A limited Company is considering investing a project requiring a capital outlay of ₹ 2,00,000. Forecast for annual income after depreciation but before tax is as follows:

Year	₹
1	1,00,000
2	1,00,000
3	80,000
4	80,000
5	40,000

Depreciation may be taken as 20% on original cost and taxation at 50% of net income. Calculate NPV. [8]

Answer:

Calculation of NPV

Year	EBT	Tax @50%	Cash inflow after tax [PAT + Depⁿ.]	PV factor @ 10%	Present Value ₹
1	1,00,000	50,000	90,000	0.909	81,810
2	1,00,000	50,000	90,000	0.826	74,340
3	80,000	40,000	80,000	0.751	60,081
4	80,000	40,000	80,000	0.683	54,640
5	40,000	20,000	60,000	0.621	37,260
Total Inflow					3,08,131
Less: Initial investment					2,00,000
NPV					(1,08,131)

10. Write short note on any three [3 x 4=12]

(a) Assumptions of the MM Approach:

(b) Differences between Funds Flow Statement and Cash Flow Statement

(c) Commercial Bill

(d) Significance of Cash Management

Answer:

(a) Assumptions of the MM Approach:

- There is a perfect capital market. Capital markets are perfect when
  - Investors are free to buy and sell securities,
  - They can borrow funds without restriction at the same terms as the firms do,
  - They behave rationally,
  - They are well informed, and
  - There are no transaction costs.
- Firms can be classified into homogeneous risk classes. All the firms in the same risk class will have the same degree of financial risk.
- All investors have the same expectation of a firm's net operating income (EBIT).
- The dividend payout ratio is 100%, which means there are no retained earnings.
- There are no corporate taxes. This assumption has been removed later.

(b) Differences between Funds Flow Statement and Cash Flow Statement:

The following are the main differences between a Funds Flow Statement and a Cash Flow Statement:-

Funds Flow Statement	Cash Flow Statement
1. Funds Flow Statement reveals the change in working capital between two Balance Sheet dates	Cash Flow Statement reveals the changes in cash position between two balance sheet dates
2. Funds Flow Statement is based on accounting	Cash Flow Statement is based on cash basis of accounting
3. In the case of Funds Flow Statement a schedule of changes in working capital is prepared.	No such schedule of changes in working capital is prepared for a Cash Flow Statement.
4. Funds Flow Statement is useful in planning, intermediate and long term financing.	Cash Flow Statement as a tool of financial analysis is more useful for short-term analysis and cash planning.

(c) Commercial Bill:

Commercial bill is a short term, negotiable, and self-liquidating instrument with low risk. It enhances the liability to make payment in a fixed date when goods are bought on credit. The bill of exchange is a written unconditional order signed by the drawer requiring the party to whom it is addressed to pay on demand or at a future time, a definite sum of money to the payee. It is negotiable and self-liquidating money market instrument which evidences the liquidity to make a payment on a fixed date when goods are bought on credit. It is an asset with a high degree of liquidity and a low degree of risk. Such bills of exchange are discounted by the commercial banks to lend credit to the bill holder or to borrow from the Central bank. The bank pays an amount equal to face

value of the bill minus collection charges and interest on the amount for the remaining maturity period. The writer of the bill (debtor) is drawer, who accept the bill is drawee and who gets the amount of bill is payee. Commercial bills can be inland bills or foreign bills.

(d) Significance of Cash Management

- **Cash planning**: Cash is the most important as well as the least unproductive of all current assets. Though, it is necessary to meet the firm's obligations, yet idle cash earns nothing. Therefore, it is essential to have sound cash planning neither excess nor inadequate.
- **Management of cash flows**: This is another important aspect of cash management. Synchronisation between cash inflows and cash outflows rarely happens. Sometimes, the cash inflows will be more than outflows because of receipts from debtors, and cash sales in huge amounts. At other times, cash outflows exceed inflows due to payment of taxes, interest and dividends etc. Hence, the cash flows should be managed for better cash management.
- **Maintaining optimum cash balance:** Every firm should maintain optimum cash balance. The management should also consider the factors determining and influencing the cash balances at various point of time. The cost of excess cash and danger of inadequate cash should be matched to determine the optimum level of cash balances.
- **Investment of excess cash:** The firm has to invest the excess or idle funds in short term securities or investments to earn profits as idle funds earn nothing. This is one of the important aspects of management of cash. Thus, the aim of cash management is to maintain adequate cash balances at one hand and to use excess cash in some profitable way on the other hand.