Paper 10 – Cost & Management Accounting and Financial Management

Paper 6- Cost & Management Accounting and Financial Management

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

The figures in the margin on the right side indicate full marks.
This paper contains five questions.
All questions are compulsory, subject to instruction provided against each questions.
All workings must form a part of your answer.
Assumptions, if any, must be clearly indicated.

Section A

1. **Answer all the following questions.**

(a) Multiple choice questions: **[3×1=3]**

(i) Decision-making is involved in the following function/s of management

A. Planning

B. Organizing

C. Controlling

D. All the above functions

(ii) Fixed cost is 30,000 and P/V ratio is 20%. Compute breakeven point.

A. ₹160,000

B. ₹150,000

C. ₹155,000

D. ₹145,000

(iii) Difference between standard cost and actual cost is called as

A. Wastage

B. Loss

C. Variance

D. Profit

(b) Match the following: [4×1=4]

Column I	Column II
1. A budget is a plan of action expressed in	A. Management by Exception
2. Uniform Costing	B. Management
3. Management accounting is a tool to	C. Profitability rate
4. Angle of Incidence	D. All business activities

(c) Fill in the blanks: [1×4 =4]

(i) Management Accounting is __________ in its orientation.

(ii) Revision of budget is _________

(iii) When sales are ₹300,000 and variable cost is ₹180,000, P/V ratio will be_____________

(iv) The term window dressing means __________ of accounts.

(d) State whether the following statements are True or False: [1×4=4]

(i) NPV is Non-Discounted Cash Flow Technique of Capital Budgeting.

(ii) Variable cost per unit is variable.

(iii) A flexible budget recognises the difference between fixed, semi-fixed and variable cost and is designed to change in relation to the change in level of activity.

(iv) Standard formats are used in management accounting for preparation of reports.

(e) Answer the following questions. [2×5=10]

(i) Consider the following information for Target Ltd.

EBIT ₹1120 Lakhs

PBT ₹320 Lakhs

Fixed Cost ₹700 Lakhs

Calculate the percentage of change in earnings per share, if sales increased by 5%.

(ii) A project has an equity beta of 1.2 and is going to be financed by 30% debt and.70% equity. Assume debt beta = 0, Rf= 10% and Rm= 18%. What is the required rate of return?

(iii) The following information relates to budgeted operation of Division P of a manufacturing company.

Particulars	Amount in ₹
Sales – 50,000 units @ ₹ 8	4,00,000
Less: Variable Costs @ ₹6 per unit	3,00,000
Contribution margin	1,00,000
Less: Fixed Costs	75,000
Divisional Profits	25,000

The amount of divisional investment is ₹1,50,000 and the minimum desired rate of return on the investment is the cost of capital of 20%. Calculate

a. Divisional expected ROI and

b. Divisional expected RI

(iv) Standard cost of material for output of 2,600 units is ₹71,500 and actual output is 2,550 units. If material mix variance is ₹ 1,095 adverse, find out material usage variance.

(v) The budgeted annual sales of a firm are ₹80 lakhs and 25% of the sales are cash sales. If the average amount of debtors of the firm is ₹5 lakhs, what will be the average collection period of credit sales?

Section B

I. Answer any one Question from Q. No 2 and 3. Each Question carries 15 Marks

2. (a) What are the objectives of Inter Company transfer pricing. [6]

(b) N Ltd., engaged in the manufacture of the two products _A' and _B' gives you the following information:

	Product A	Product B
	₹	₹
Selling Price per unit	60	100
Direct materials per unit	20	25
Direct wages per unit @ ₹0.50 per hour	10	15
Variable overhead	100% of direct wages	
Fixed overhead	₹10,000 per annum	
Maximum capacity	1,000 units	

Show the contribution of each of the products A and B and recommend which of the following sales mix should be adopted:

1. 300 units of product A and 600 units of product B;
2. 450 units of product A and 450 units of product B;
3. 600 units of product A and 300 units of product B. [9]

3. (a) The share of total production and the cost-based fair price computed separately for each of the four units in industry are as follows:

	₹ per unit			
Share of Production	40%	25%	20%	15%
Material Costs	150	180	170	190
Direct Labour	100	120	140	160
Depreciation	300	200	160	100
Other overheads	300	300	280	240
	850	800	750	690
20% return on capital employed	628	430	350	230
Fair Price	1,480	1,230	1,100	920
Capital employed per unit is worked out as follows:				
Net Fixed Assets	3,000	2,000	1,600	1,000
Working Capital	140	150	150	150
Total	3,140	2,150	1,750	1,150

Indicate with reasons, what should be the uniform Price fixed for the product. [6]

(b) Distinguish between fixed budget and flexible budget. [5]

(c) A mobile manufacturing company finds that while it costs ₹ 6.25 each to make a component X – 2370, the same is available in the market at ₹ 5.75 with an assurance of continued supply. The break-down of cost is:

Direct materials	₹ 2.75 each
Direct labour	₹ 1.75 each
Other variables	₹ 0.50 each
Depreciation and other fixed cost	₹ 1.25 each
Total	₹ 6.25 each

(i) Should you make or buy?

(ii) What would be your decision if the supplier offers the component at ₹4.85 each? [4

II. Answer any two Questions from Q. No 4, 5 and 6. Each Question carries 10 Marks

4. From the following forecast of income and expenditure prepare a Cash Budget for the three months ending on June, 2016:

Month	Sales	Purchase	Wages	Misc.
	(₹)	(₹)	(₹)	(₹)
2016, February	1,20,000	84,000	10,000	7,000
March	1,30,000	1,00,000	12,000	8,000
April	80,000	1,04,000	8,000	6,000
May	1,16,000	1,06,000	10,000	12,000
June	88,000	80,000	8,000	6,000

Additional Information:

I. Sales: 20% realised in the month of sales, discount allowed 2%, balance realised equally in two subsequent months.

II. Purchases: These are paid in the month following the month of supply.

III. Wages: 25% paid in arrears following month.

IV. Misc. Expenses : Paid a month in arrears.

V. Rent: ₹ 1,000 per month paid quarterly in advance due in April.

VI. Income Tax: First installment of advance tax `25,000 due on or before 15th June to be paid within the month.

VII. Income from Investment: ₹5,000 received quarterly in April, July etc.

VIII. Cash in Hand: ₹5,000 in April 1,2016. [10]

5. X Chemical Ltd. manufacture two products AB and CD by making the raw material in the proportion shown:

Raw Material	Product AB	Product CD
A	80%	
B	20%	
C		50%
D		50%

The finished weight of products AB and CD are equal in the weight of ingredients. During the month of June, it is expected that 60 tons of AB and 200 tons of CD will be sold

Actual and budgeted inventories for the month of June as follows:

	Actual Inventory (1st June) Quantity (Tons)	Budgeted Inventory (30th June) Quantity (Tons)
A	15	20
B	10	40
C	200	300
D	250	200
Product AB	10	5
Product CD	50	60

The purchase price of materials for June is expected to be as follows:

Material	Cost per ton (₹)
A	500
B	400
C	100
D	200

All materials will be purchased on 3rd of June,Prepare:

(i) The Production Budget for the month of June,

(ii) The Material Requirement budget for June,

(iii) The Material Purchase Budget indicating the expenditure for material for the month of June. [3+3+4]

6. **(a)** A company fixes the inter-divisional transfer prices for its products on the basis of cost plus an estimated return on investment in its divisions. The relevant portion of the budget for the Division X for the year 2015 -16 is given below:

Particulars	Amount in ₹
Fixed Assets	5,00,000
Current Assets (other than debtors)	3,00,000
Debtors	2,00,000
Annual fixed cost for the division	8,00,000
Variable cost per unit of product	10
Budgeted volume of production per year (units)	4,00,000
Desired Return on Investment	28%

You are required to determine the transfer price for Division X. [5]

(b) What is the role of management accounting in management. [5]

Section C

Answer any two Questions from Q. No 7, 8 and 9. Each Question carries 20 Marks

7. **(a)** A Company is considering two mutually exclusive projects. Project K will require an initial cash investment in machinery of ₹ 2,68,000. It is anticipated that the machinery will have a useful life of ten years at the end of which its salvage will realise ₹20,500. The project will also require an additional investment in cash, Sundry debtors and stock of ₹40,000. At the end of five years from the commencement of the project balancing equipment for ₹45,000 has to be installed to make the unit workable. The cost of additional machinery will be written off to depreciation over the balance life of the project. The project is expected to yield a net cash flow (before depreciation) of ₹1,00,000 annually. Project R, which is the alternative one under consideration, requires an investment of ₹3,00,000 in machinery and as in Project K investment in current assets of ₹40,000. The residual salvage value of the machinery at the end of its useful life of ten years is expected to be ₹25,000. The annual cash inflow (before depreciation) from the project is worked at ₹80,000 p.a. for the first five years and ₹1,80,000 per annum for the next five years.

Depreciation is written off by the Company on sum-of-the years' digits method, (i.e., if the life of the asset is 10 years, then in the ratio of 10, 9, 8 and so on). Income tax rate is 50%. A minimum rate of return has been calculated at 16%. The present value of ₹1 at interest of 16% p.a. is 0.86, 0.74, 0.64, 0.55, 0.48, 0.41, 0.35, 0.30, 0.26 and 0.23 for years 1 to10 respectively . Which Project is better? Assuming no capital gains taxes, calculate the Net Present Value of each Project. [10]

(b) Explain the debt-service coverage ratio. [4]

(c) Distinguish between financial lease and an operating lease. [6]

8. **(a)** Aries Limited wishes to raise additional finance of ₹10 lacs for meeting its investment plans. It has ₹2,10,000 in the form of retained earnings available for investment purposes. The following are the further details:

1. Debt/equity mix 30% / 70%

2. Cost of debt upto₹1,80,000 10% (before tax) beyond ₹1,80,000 16%(before tax)

3. Earnings per share	₹4
4. Dividend payout	50% of earnings
5. Expected growth rate in dividend	10%
6. Current market price per share	₹44
7. Tax rate	50%

You are required to:

1. To determine the pattern for raising the additional finance.

2. To determine the post-tax average cost of additional debt.

3.To determine the cost of retained earnings and cost of equity, and Compute the overall weighted average after tax cost of additional finance.

[4+2+2+4]

(b) A Company's current operating income is ₹4 lakhs. The firm has ₹10lakhs of 10% debt outstanding. Its cost of equity capital is estimated to be 15%.

(v) Determine the current value of the firm using traditional valuation approach.
(vi) Calculate the firm's overall capitalization ratio as well as both types of leverage ratios(a) B/s (b) B/V. [4+4]

9. (a) Rajesh Ltd is considering the purchase of a delivery van, and is evaluating the following two choices: The company can buy a used van for ₹ 20,000 and after 4 years sell the same for ₹ 2,500 (net of taxes) and replace it with another used van which is expected to cost ₹ 30,000 and has 6 years life with no terminating value.

The company can buy a new van for ₹ 40,000. The projected life of the van is 10 years and has an expected salvage value (net of taxes) of ₹ 5,000 at the end of 10 years. The services provided by the vans under both the choices are the same. Assuming the cost of capital at 10 percent, which choice is preferable? [8]

(b) What are the objectives of financial management? [5]

(c) With the help of the following information complete the Balance Sheet of PKJ Ltd.

Equity share capital	₹ 1,00,000
The relevant ratios of the company are as follows:	
Current debt to total debt	40
Total debt to owner's equity	60
Fixed assets to owner's equity	60
Total assets turnover	2 Times
Inventory turnover	8 Times

[7]