

Paper 10 – Cost & Management Accounting and Financial Management

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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: [1×6=6]

- (i) When actual price is higher or lower than the standard price, then it is
 - (A) Sales price variance
 - (B) Sales volume variance
 - (C) Sales mix variance
 - (D) Sales quantity variance
- (ii) If the actual output is more than the budgeted output, volume variance is
 - (A) Favourable
 - (B). Non-favorable
 - (C) No impact
 - (D) None of the above
- (iii) Marginal costs is taken as equal to
 - (A) Prime Cost plus all variable overheads
 - (B) Prime Cost minus all variable overheads
 - (C) Variable overheads
 - (D) None of the above
- (iv) _____ is the first step of budgetary system and all other budgets depends on it.
 - (A) Cost budget
 - (B) Sales budget
 - (C) Production budget
 - (D) None of the above
- (v) Which of the following statements are true for forecast and budget?
 - (A) Forecast and budget are one and same thing
 - (B) Budget is prepared after the forecast
 - (C) Forecast and budget both can be expressed in financial form
 - (D) All of the above
- (vi) Determine Contribution if Sales is ₹ 1,50,000 and P/V ratio is 40%.
 - (A) ₹ 60,000
 - (B) ₹ 70,000
 - (C) ₹ 30,000
 - (D) None of the above

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

| Column I | Column II |
|--------------------------|-------------------------|
| (i)Marginal Costing | (A)Fixed Cost |
| (ii)Period Cost | (B)marginal income |
| (iii)Contribution margin | (C)Break even Analysis. |
| (iv)P/V ratio | (D)Variable costing |

(c) State whether the following statements are True/False?

[1×4=4]

- (i) Break even Analysis is based on the assumption that total fixed cost does not change.
- (ii) Sales Value Variance is the difference between actual sales and budgeted sales.
- (iii) A favourable budget variance is always an indication of efficient performance.
- (iv) P/V ratio indicates the relationship between profit and sales.

Answer:

1. (a) (i) (A) Sales price variance
(ii) (A) Favourable
(iii) (A) Prime Cost plus all variable overheads
(iv) (B) Sales budget
(v) (B) Budget is prepared after the forecast
(vi) (A) ₹ 60,000

(b)

| Column I | Column II |
|--------------------------|-------------------------|
| (i)Marginal Costing | (D)Variable costing |
| (ii)Period Cost | (A)Fixed Cost |
| (iii)Contribution margin | (B)marginal income |
| (iv)P/V ratio | (C)Break even Analysis. |

(c) (i) True

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

(Amount in ₹)

| Units | A | B | C | D |
|---------------------------------------|--------------|--------------|--------------|--------------|
| Share of Production (%) | 40 | 25 | 20 | 15 |
| Direct Material | 300 | 360 | 340 | 380 |
| Direct Labour | 200 | 240 | 280 | 320 |
| Depreciation | 600 | 400 | 320 | 200 |
| Other Overheads | 600 | 600 | 560 | 480 |
| 20% Return on Capital Employed | 1,700 | 1,600 | 1,500 | 1,380 |
| FAIR PRICE | 1,260 | 860 | 700 | 460 |
| Capital Employed per unit | 2,960 | 2,460 | 2,200 | 1,840 |
| Net Fixed Assets (₹ per unit) | 6,000 | 4,000 | 3,200 | 2,000 |
| Working Capital (₹ per unit) | 300 | 3,000 | 300 | 300 |
| Total Capital (₹ per unit) | 6,300 | 4,300 | 3,500 | 2,300 |

Required:

What should be the uniform price fixed for the product of the industry?

- (b) A retail dealer in garments is currently selling 24,000 shirts annually. He supplies the following details for the year ended 31st March 2017.**

Selling price per shirt: ₹800

Variable cost per shirt: ₹600

Fixed Cost:

Staff salaries: ₹24,00,000

General Office Cost : ₹ 8,00,000

Advertising Cost: ₹ 8,00,000

As a Cost Accountant, you are required to answer the following each part independently:

- (i) Calculate Break Even Point and margin of safety in sales revenue and number of shirts sold.**

- (ii) Assume that 30,000 shirts were sold during the year, find out the net profit of the firm.**

[6+6]

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Answer:

2. (a)

COMPUTATION OF UNIFORM PRICE FOR THE PRODUCT

(Amount in ₹)

| Units share of production | | Total cost | Return on capital employed | Selling price |
|---------------------------|------|--------------------------|----------------------------|---------------|
| | (1) | (2) | (3) | (2+3) |
| A | 0.40 | $1700 \times 0.40 = 680$ | $1260 \times 0.40 = 504$ | 1184 |
| B | 0.25 | $1600 \times 0.25 = 400$ | $860 \times 0.25 = 215$ | 615 |
| C | 0.20 | $1500 \times 0.20 = 300$ | $700 \times 0.20 = 140$ | 440 |
| D | 0.15 | $1380 \times 0.15 = 207$ | $460 \times 0.15 = 69$ | 276 |
| | | = 1587 | = 928 | 2515 |

Uniform price: ₹1,587 + ₹928 = ₹2,515

Hence, Uniform price for the product = ₹2,515

$$\begin{aligned}
 \text{(b) (i) Break Even Point: [units]} &= \text{Fixed Cost} / \text{Contribution Per Unit} \\
 &= ₹40,00,000 / ₹200 \\
 &= 20\,000 \text{ number of shirts}
 \end{aligned}$$

$$\begin{aligned}
 \text{Note: Contribution per units is selling price} - \text{variable cost per unit} \\
 &= ₹800 - ₹600 = ₹200
 \end{aligned}$$

$$\begin{aligned}
 \text{Break Even Point [sales value]} &= 20000 \text{ units} - ₹800 = ₹1,60,00,000 \\
 \text{Margin of safety} &= \text{Actual Sales} - \text{Break Even Sales} \\
 &= (24,000 \text{ shirts} \times ₹800) - ₹1,60,000 \\
 &= ₹1,92,00,000 - ₹1,60,00,000 \\
 &= ₹32,00,000
 \end{aligned}$$

$$\text{Margin of safety [units]} = 24,000 \text{ shirts} - 20,000 \text{ shirts} = 4000 \text{ shirts}$$

$$\begin{aligned}
 \text{(ii) Amount of profit if 30,000 shirts are sold:} \\
 \text{Sales [units]} &= \text{Fixed Cost} + \text{Profit} / \text{Contribution Per Unit} \\
 \text{Or, } 30,000 &= ₹40,00,000 + \text{Profit} / ₹200 \\
 \text{Or, Profit} &= ₹20,00,000
 \end{aligned}$$

3. (a) AKASH LTD. operates a system of Standard Costing. The company has normal monthly machine-hour capacity of 100 machines working 8 hours per day for 25 working days in the month of April 2017.
- (i) The standard time Required to manufacture one unit of products is 4 hours. The Budgeted fixed overhead was ₹1,50,000.
 - (ii) In the month of April 2017, the company actually worked for 24 days for average 750 machine-hours per day.
 - (iii) The Actual production was 4500 units, and the actual fixed overhead was ₹ 1,60,000.

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You are required to compute:

- (A) Fixed overhead efficiency variance
- (B) Fixed overhead capacity variance
- (C) Fixed overhead calendar variance

(b) Arun Ltd. follows standard costing system and the following information is available for the month of April, 2017:

- i) Actual Production – 1,500 kg.

| Materials Consumed | | | Labour deployed | | |
|--------------------|-----------------|------------------|-----------------|---------------------|-------------------|
| Type | Quantity (kgs.) | Rate (₹ per kg.) | Worker | Time worked (hours) | Rate (₹ per hour) |
| A | 550 | 5.00 | P | 32 | 11.00 |
| B | 200 | 6.00 | Q | 14 | 9.00 |
| C | 350 | 2.00 | R | 20 | 11.00 |
| D | 400 | 5.00 | S | 10 | 18.00 |

- ii) Details of standard materials and labour cost based on production of 1,000 kgs. are as under:

| Consumption of Materials | | | Deployment of labour | | |
|--------------------------|-----------------|------------------|----------------------|--------------|-------------------|
| Type | Quantity (kgs.) | Rate (₹ per kg.) | Worker | Time (hours) | Rate (₹ per hour) |
| A | 400 | 4.00 | P | 20 | 10.00 |
| B | 100 | 5.00 | Q | 10 | 8.00 |
| C | 200 | 2.50 | R | 15 | 12.00 |
| D | 300 | 6.00 | S | 7 | 20.00 |

From the above information you are required to compute.

[6+6]

Answer:

3. (a)

AKASH LTD.

Working Notes:

| | | Budget | (Actual) |
|--------|--|----------------------------------|------------------------------|
| (i) | Fixed overhead for the month of Apr'14 | ₹1,50,000 | ₹1,60,000 |
| (ii) | Working days for THE MONTH OF Apr'14 | 25 | 24 |
| (iii) | Working hours per month (April'14) | 20,000 hrs (100 × 8 × 25 hrs) | 18,000 hrs (750 × 24 hrs) |
| (iv) | Production units per month | 5,000 (20,000/4) | 4,500 |
| (v) | Standard hours for actual production during the month: Actual production unit × standard hours per unit $4,500 \times 4 = 18,000$ hours | | |
| (vi) | Standard fixed overhead rate per unit = ₹30.00 | | |
| (vii) | Standard fixed overhead rate per hour = ₹7.50 | | |
| (viii) | Standard fixed overhead rate per day = ₹6,000 | | |

Computation of fixed overhead cost variances:

(A) Fixed overhead efficiency variance:

$$\begin{aligned}
 &= \text{Standard fixed overhead rate per hour} \times (\text{Standard hours for actual production} - \text{actual hours}) \\
 &= ₹7.50 (18,000 - 18,000) \\
 &= \text{Nil}
 \end{aligned}$$

(B) Fixed overhead capacity variance:

$$\begin{aligned}
 &= \text{Standards fixed overhead rate per hour} \times (\text{Actual hours} - \text{Budgeted hours}) \\
 &= 7.50 \{18,000 - (24 \text{ days} \times 100 \text{ m/c} \times 8 \text{ hrs})\} \\
 &= 7.50 (18,000 - 19,200) \\
 &= 7.50 \times -1,200 \\
 &= ₹9,000 \text{ (Adverse)}
 \end{aligned}$$

(C) Fixed overhead calendar variance:

$$\begin{aligned}
 &= \text{Standard Fixed overhead rate} \times (24 - 25) \\
 &= ₹6,000 \times (24 - 25) \\
 &= ₹6,000 \text{ (Adverse)}
 \end{aligned}$$

(b) Labour variances:

| Worker | Std. Cost for Actual Output 1500 kg. | | | Actual cost for Actual Production | | |
|--------|--------------------------------------|-----------|-------------|-----------------------------------|-----------|-------------|
| | Time (Hrs.) | Rate ₹ | Amount ₹ | Time (Hrs.) | Rate ₹ | Amount ₹ |
| P | 30 | 10 | 300 | 32 | 11 | 352 |
| Q | 15 | 8 | 120 | 14 | 9 | 126 |
| R | 22.5 | 12 | 270 | 20 | 11 | 220 |
| S | 10.5 | 20 | 210 | 10 | 18 | 180 |
| Total | 78 | | 900 | 76 | | 878 |

| | | |
|--------------------------------|---------------------------|----------|
| (i) Labour Rate Variance (LRV) | = Actual Hrs. × (SR – AR) | |
| P | = 32 × (10 – 11) | = 32 (A) |
| Q | = 14 × (8 – 9) | = 14 (A) |
| R | = 20 × (12 – 11) | = 20 (F) |
| S | = 10 × (20 – 18) | = 20 (F) |
| | | ₹ 6(A) |

| | | |
|---------------------------------|--|----------|
| (ii) Labour Eff. Variance (LEV) | = Std. Rate × (Std. time for output – Actual time) | |
| P | = 10 × (30 – 32) | = 20 (A) |
| Q | = 8 × (15 – 14) | = 8 (F) |
| R | = 12 × (22.5 – 20) | = 30 (F) |
| S | = 20 × (10.5 – 10) | = 10 (F) |
| | | ₹ 28(F) |

- 4. (a) The monthly budgets for manufacturing overhead of SHAHEEN LTD. for two levels of activity were as follows:**

| Capacity | 60% | 100% |
|---------------------|-------|--------|
| Budgeted production | 600 | 1,000 |
| | ₹ | ₹ |
| Wages | 1,200 | 2,000 |
| Consumable stores | 900 | 1,500 |
| Maintenance | 1,100 | 1,500 |
| Power & Fuel | 1,600 | 2,000 |
| Depreciation | 4,000 | 4,000 |
| Insurance | 1,000 | 1,000 |
| | 9,800 | 12,000 |

Required:

- (i) Indicate which of the items are fixed, variable and semi-variable;
- (ii) Prepare a Budget for 80% capacity; and

- (b) Sintex Ltd. has prepared its expense budget for 20,000 units in its factory for the year 2017 as detailed below:**

| | ₹ per unit |
|--------------------------------------|------------|
| Direct Materials | 45 |
| Direct Labour | 20 |
| Variable overhead | 15 |
| Direct Expenses | 6 |
| Selling Expenses (20% fixed) | 15 |
| Factory Expenses (100% fixed) | 7 |
| Administration Expenses (100% fixed) | 4 |
| Distribution Expenses (85% variable) | 12 |
| Total | ₹124 |

Prepare Flexible budget for the production of 14,000 units and 18,000 units.

[5+7]

Answer:

- 4. (a) (i)** Fixed -> Depreciation and Insurance
Variable -> Wages and consumable stores
Semi-variable - Maintenance, Power and Fuel.

(ii) Working Notes:

Segregation of semi-variable costs:

$$\text{Maintenance} = [1,500 - 1,100] / 400 = ₹ 1. \text{ Per unit variable and}$$

$$\text{Fixed cost} = 1,100 - 600 = ₹ 500.$$

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Power & Fuel = [2,000 - 1,600] / 400 = ₹ 1. Per unit variable and
Fixed cost = 1,600 - 600 = ₹ 1000.

BUDGET FOR 80% CAPACITY LEVEL

Budgeted Production (80 % Capacity) 800 Units

| | ₹ |
|--|---------------|
| Wages @ ₹ 2.00 per unit | 1,600 |
| Consumable stores @ ₹ 1.50 per unit | 1,200 |
| Maintenance : ₹500+₹1.00 per unit Power & Fuel : ₹1,000+₹1.00 per unit | 1,300 |
| Depreciation | 1,800 |
| Insurance | 4,000 |
| Total Cost : | 10,900 |

(b)

In the books of Sintex Ltd.

Flexible Budget

| Particulars | Production | |
|---|------------------|------------------|
| | 14,000 units | 18,000 units |
| Direct material @ ₹45 per unit | 6,30,000 | 8,10,000 |
| Direct Labour @ ₹20 per unit | 2,80,000 | 3,60,000 |
| Direct Expenses @ ₹6 per unit | 84,000 | 1,08,000 |
| Variable Overhead @ ₹15 per unit | 2,10,000 | 2,70,000 |
| Selling Expenses: | | |
| Fixed: (₹15 × 20,000 units × 20%) | 60,000 | 60,000 |
| Variable: (₹15×20,000 units×80%) ÷ 20,000 units = ₹12 per unit | 1,68,000 | 2,16,000 |
| Factory Expenses (100% Fixed) | | |
| Fixed: (₹7 × 20,000 units) | 1,40,000 | 1,40,000 |
| Administration Exp. (100% Fixed) | | |
| Fixed: (₹4 × 20,000 units) | 80,000 | 80,000 |
| Distribution Expenses | | |
| Fixed: (₹12 × 20,000 × 15%) | 36,000 | 36,000 |
| Variable: (₹12 × 20,000 × 85%) ÷ 20,000 units = ₹10.20 per unit | 1,42,800 | 1,83,600 |
| Total Cost | 18,30,800 | 22,63,600 |

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

[4×3=12]

- (a) Limitations of BEP (any four limitations)
- (b) Transfer Pricing based on Opportunity Cost.
- (c) Advantages of Budgetary Control (any four advantages)
- (d) Causes of Labour Efficiency Variance(any four causes)

Answer:

5. (a) **Limitations of BEP**

- (i) That Costs are either fixed or variable and all costs are clearly segregated into their fixed and variable elements. This cannot possibly be done accurately and the difficulties and complications involved in such segregation make the break-even point inaccurate.
- (ii) That the behavior of both costs and revenue is not entirely related to changes in volume.
- (iii) That costs and revenue patterns are linear over levels of output being considered. In practice, this is not always so and the linear relationship is true only within a short run relevant range.
- (iv) That fixed costs remain constant and variable costs vary in proportion to the volume. Fixed costs are constant only within a limited range and are liable to change at varying levels of activity and also over a long period, particularly when additional plants and equipments are introduced.

(b) Transfer Pricing based on opportunity cost: -

This pricing recognizes the minimum price that the selling division is ready to accept and the maximum price that the buying division is ready to pay. The final transfer price may be based on these minimum expectations of both the divisions. The most ideal situation will be when the minimum price expected by the selling division is less than the maximum price accepted by the buying division. However in practice, it may happen very rarely and there is possibility of conflicts over the opportunity cost.

It is very clear that fixation of transfer prices is a very delicate decision. There might be clash of interests between the selling and buying division and hence while fixing the transfer price, overall interests of the organisation should be taken into consideration and overall 'Goal Congruence' should be given utmost importance rather than interests of the selling or buying division.

(c) Advantages of Budgetary Control:

- (i) Budgetary control aims at maximisation of profits through optimum utilisation of resources.
- (ii) It is a technique for continuous monitoring of policies and objectives of the organisation.
- (iii) It helps in reducing the costs, thereby helps in better utilisation of funds of the organisation.
- (iv) All the departments of the organisation are closely coordinated through establishment of plans resulting in smooth functioning of the organisation.

(d) Causes for Labour Efficiency Variance:

- (i) Lack of proper supervision or strict supervision than specified.
- (ii) Poor working conditions.
- (iii) Delays due to waiting for materials, tools, instructions, etc. if not treated as idle time.
- (iv) Defective machines, tools and other equipments.

Part B : (Financial Management)

Section - III

6. Answer the following questions:

- (a) Choose the correct answer from the given four alternatives: [1×6=6]
- (i) Profit for the objective of calculating a ratio may be taken as
 - (A) Profit before tax but after interest
 - (B) Profit before interest and tax
 - (C) Profit after interest and tax
 - (D) All of the above
 - (ii) If reserve for bad and doubtful debts is mentioned in the question of Funds Flow Statement Preparation, it can be shown as
 - (A) In the schedule by deducting from total debtors under current assets
 - (B) In the schedule separately under the heading of capital liabilities
 - (C) Both A and B
 - (D) None of the above
 - (iii) Which one of the following will increase the operating cycle?
 - (A) increasing the accounts payable period
 - (B) decreasing the accounts payable period
 - (C) decreasing the cash cycle
 - (D) increasing the inventory period
 - (iv) If the CAPM is used to estimate the cost of equity capital, the expected excess market return is equal to the:
 - (A) Return on the stock minus the risk-free rate.
 - (B) Difference between the return on the market and the risk-free rate.
 - (C) Beta times the market risk premium.
 - (D) Beta times the risk-free rate.
 - (v) If a firm has low fixed costs relative to all other firms in the same industry, a large change in sales volume (either up or down) would have:
 - (A) a smaller change in EBIT for the firm versus the other firms.
 - (B) no effect in any way on the firms as volume does not effect fixed costs.
 - (C) a decreasing effect on the cyclical nature of the business.
 - (D) a larger change in EBIT for the firm versus the other firms.
 - (vi) In mutually exclusive projects, project which is selected for comparison with others must have

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- (A) higher net present value
- (B) lower net present value
- (C) zero net present value
- (D) all of the above

(b) Match the statement in Column I with appropriate statement in Column II

[1×4=4]

| Column I | Column II |
|-----------|-------------------------|
| (i) ROI | (A) Solvency ratio |
| (ii) DSCR | (B) Investment Decision |
| (iii) NPV | (C) Capital Structure |
| (iv) NOI | (D) Profitability Ratio |

(c) State whether the following statements are True or False:

[1×4=4]

- (i) In working capital management we find that profitability varies inversely with liquidity.
- (ii) The goal of the firm should be to maximize earnings per share.
- (iii) A capital investment involves making a current cash outlay in the expectation of future benefits.
- (iv) If a company has no fixed costs, its DOL equals 1.

Answer:

6. (a) (i) (D) All of the above
(ii) (C) Both A and B
(iii) (D) increasing the inventory period
(iv) (B) Difference between the return on the market and the risk-free rate.
(v) (A) a smaller change in EBIT for the firm versus the other firms.
(vi) (A) higher net present value

(b)

| Column I | Column II |
|-----------|-------------------------|
| (i) ROI | (D) Profitability Ratio |
| (ii) DSCR | (A) Solvency ratio |
| (iii) NPV | (B) Investment Decision |
| (iv) NOI | (C) Capital Structure |

- (c) (i) True
(ii) False
(iii) True

7. (a) The following information is given to you as on 31-03-2017 for a company:

| | |
|---------------------------|----------|
| Current Ratio | 2.5 |
| Liquid Ratio | 1.5 |
| Fixed Assets (net) | 1,80,000 |
| Working Capital | 60,000 |

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| | |
|---|---------------|
| 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.

(b) AM Limited had the following condensed Trial Balance as at 31.03.2017:

| Debit | Amount (₹) | Credit | Amount (₹) |
|---------------------------|-----------------|--------------------------------|-----------------|
| Cash | 7,500 | Current Liabilities | 15,000 |
| Account Receivable | 30,000 | Long-Term Notes Payable | 25,500 |
| Investments | 20,000 | Bonds Payable | 25,000 |
| Plant Assets | 67,500 | Capital Stock | 75,000 |
| Land | 40,000 | Retained Earnings | 24,500 |
| | 1,65,000 | | 1,65,000 |

During 2016-2017, the following transactions took place:

- A tract of land was purchased for ₹ 7,750 cash.
- Bonds payable in the amount of ₹ 6,000 were retired for cash at face value.
- An additional ₹ 20,000 equity shares were issued at par for cash.
- Dividends totalling ₹ 9,375 were paid.
- Net income for 2016-2017 was ₹ 28,450 after allowing for depreciation of ₹ 9,500.
- Land was purchased through the issuance of ₹ 22,500 in bonds.
- AM Ltd. sold a part of its investments portfolio for ₹ 12,875 cash. The transaction resulted in a gain of ₹ 1,375 for the firm.
- Current liabilities increased to ₹ 18,000 at 31-3-2017.
- Accounts receivable at 31-3-2017 total ₹ 38,000.

Prepare a abridged statement of cash flows from Financing Activities for 2016-2017, under indirect method. [7+5]

Answer:

7. (a) Current Assets/ Current Liabilities = 2.5 ;

Current Assets – Current Liabilities = ₹. 60,000

Therefore, 1.5 Current liabilities = ₹.60,000

Therefore, Current liabilities = ₹.60,000/1.5 = ₹.40,000

Current Assets = ₹. 60,000 + Current Liabilities or, ₹.(60,000 + 40,000) = ₹.1,00,000

Bank Overdraft is not excluded from Current Liabilities as it is stated to be "short term"

Liquid Ratio (Quick Ratio) = (Current Assets – Stock) / Current Liabilities = 1.5 or,

₹. 1,00,000 – Stock = ₹1.5 40,000 (= ₹. 60,000)

Therefore, Stock = ₹. 40,000

Current Assets ₹ 1,00,000 – Stock ₹ 40,000 =Debtors and Cash ₹. 60,000

Share Capital = ₹ 2,00,000

| Liabilities | Amount | Asset | Amount |
|-------------|--------|-------|--------|
|-------------|--------|-------|--------|

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| | | | |
|---------------------|----------|-----------------------|----------|
| 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)

| Particulars | ₹ |
|---|---------|
| Cash Flows from Financing Activities | |
| Issue of shares | 20,000 |
| Redemption of Bonds | (6,000) |
| Dividend Paid | (9,375) |
| Net Cash from financing activities | 4,625 |

8. (a) A firm is considering pushing up its sales by extending credit facilities to any one of the following categories of customers: (i) Customers with a 10% risk of non-payment, and (ii) Customers with a 25% risk of non-payment. The incremental sales expected in category (i) is ₹ 2,40,000 and in category (ii) is ₹ 6,50,000. The cost of production and selling costs are 60% of sales while the collection costs amount to 5% of sales in case of category (i) and 10% of sales in case of category (ii).

You are required to advise the firm about extending credit facilities to each of the above categories of customers. (Use sale value for bad debts).

- (b) M & Co. earns ₹ 5 per share having capitalization rate of 10 percent and has a return on investment @ 20 percent. According to Walter's model, what should be the price per share at 30 percent dividend payout ratio? M & Co. earns ₹5 per share having capitalization rate of 10 percent and has a return on investment @ 20 percent. According to Walter's model, what should be the price per share at 30 percent dividend payout ratio?
- [7+5]

8. (a) Evaluation of Credit Policies

Category (i) 10% risk of non-payment

| Particulars | ₹ | ₹ |
|--|----------|----------|
| Incremental sales | | 2,40,000 |
| Less: Bad debts @ 10% | | 24,000 |
| Sales realized | | 2,16,000 |
| Less: Cost of production and selling cost ($2,40,000 \times 60\%$) | 1,44,000 | |
| Less: Collection cost ($2,40,000 \times 5\%$) | 12,000 | 1,56,000 |
| Incremental Profit | | 60,000 |

Category (ii) 25% risk of non - payment

| Particulars | ₹ | ₹ |
|-----------------------|---|----------|
| Incremental Sales | | 6,50,000 |
| Less: Bad Debts @ 25% | | 1,62,500 |
| Sales realized | | 4,87,500 |

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| | | |
|--|----------|----------|
| Less: Cost of production and selling cost ($650000 \times 60\%$) | 3,90,000 | |
| Less: Collection cost ($650000 \times 10\%$) | 65,000 | 4,55,000 |
| Incremental Profit | | 32,500 |

Advice: Incremental profit in case of category (i) is more than as same in case of category (ii). Hence, advised to extend credit facility to category (i).

$$(b) \text{ Walter model is } V_C = \frac{D + \frac{R_a}{R_c}(E - D)}{R_c}$$

Where,

V_c = Market value of the share

R_a = Return on Retained earnings

R_c = Capitalisation Rate

E = Earning per share

D =Dividend per share

Hence, if Walter model is applied

$$\text{Market value of the share } V_c = \frac{1.50 + \frac{0.20}{0.10}(5 - 1.50)}{0.10} = ₹85.$$

- 9. (a)** A Ltd. is examining two mutually exclusive investment proposals. The management uses Net Present Value Method to evaluate new investment proposals. Depreciation is charged using Straight-line Method. Other details relating to these proposals are:

| Particulars | Proposal X | Proposal Y |
|-------------------------------------|------------------|-------------------|
| Annual Profit before tax (₹) | 13,00,000 | 24,50,000 |
| Cost of the Project (₹) | 90,00,000 | 180,00,000 |
| Salvage Value (₹) | 1,20,000 | 1,50,000 |
| Working Life | 4 years | 5 Years |
| Cost of capital | 10% | 10% |
| Corporate Tax Rate | 30% | 30% |

The present value of ₹1 at 10% discount rates at the end of first, second, third, fourth and fifth year are 0.9091; 0.8264; 0.7513; and 0.6209 respectively.

You are required to advise the company on which proposal should be taken up by it.

- (b) A company's expected annual net operating income (EBIT) is ₹ 50,000. The company has ₹ 2,00,000, 10% debentures. The equity capitalization rate (K_e) of the company is 12.5%. Find the value of the firm under Net Income approach.** [8+4]

Answer:

9. (a)

Calculation of Annual Cash Inflow and Present Values:

| Particulars | Proposal X (₹) | Proposal Y (₹) |
|--|----------------|----------------|
| Annual Profit Before Tax | 13,00,000 | 24,50,000 |
| Less: tax @ 30% | 3,90,000 | 7,35,000 |
| Annual Profit After Tax | 9,10,000 | 17,15,000 |
| Add: Depreciation (Annual) | | |
| Proposal X : $\frac{90,00,000 - 1,20,000}{4}$ | 22,20,000 | - |
| Proposal Y: $\frac{1,80,00,000 - 1,50,000}{5}$ | - | 35,70,000 |
| Annual Cash inflow | 31,30,000 | 52,85,000 |
| P. V. of ₹1 for 1 to 4 year | 31,698 | - |
| P. V. of ₹1 for 1 to 5 year | - | 37,907 |
| Present value of Annual Cash Inflows | 99,21,474 | 2,00,33,850 |
| Add: Present value of salvage value: | | |
| Proposal X: $1,20,000 \times 0.683$ | 81,960 | - |
| Proposal Y: $1,50,000 \times 0.6209$ | - | 93,135 |
| Total Present value | 1,00,03,434 | 2,01,26,985 |
| Less: Initial outflow | 90,00,000 | 1,80,00,000 |
| Net Present Value | 10,03,434 | 21,26,985 |

Advice: Proposal Y should be accepted as it gives higher net present value.

- (b) Calculation of value of firm under Net Income approach**

Value of firm=MV of Equity + MV of Debt

| | |
|--|--------|
| EBIT | 50,000 |
| Less: Interest ($2,00,000 \times 10\%$) | 20,000 |
| EBT | 30,000 |
| Equity Capitalisation Rate (K_e) | 12.5% |

Therefore,

Value of Equity= $30,000 / 12.5\% = ₹ 2,40,000$

Value of Debt (given) ₹ 2,00,000

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Value of firm ₹ 4,40,000

10. Write short note on any three of the following: [3×4=12]

- (a) Financial lease**
- (b) Standards for Comparison in Ratio Analysis**
- (c) Difference between Fund Flow and Cash Flow statement (any four difference)**
- (d) How does financial leverage increase the potential reward to the shareholders?**

Answer:

10. (a) A lease is classified as Financial Lease if it ensures the lessor for amortization of the entire cost of investment plus the expected return on capital outlay during the terms of the lease. Such a lease is usually for a longer period and non cancellable. Financial Leases are commonly used for leasing land, building, machinery and fixed equipments, etc.

A Financial Lease is usually characterized by the following features:

- (i) The present value of the total lease rentals payable during the period of the lease exceeds or is equal substantially the whole of the fair value of the leased asset. It implies that within the lease period, the lessor recovers his investment in the asset along with an acceptable rate of return
 - (ii) As compared to Operating Lease, a Financial Lease is for a longer period of time.
 - (iii) It is usually non cancellable by the lessee prior to its expiration date.
 - (iv) The lessee is generally responsible for the maintenance, insurance and services of the asset. However, the terms of lease agreement, in some cases may require the lessor to maintain and service the asset. Such an arrangement is called "maintenance or gross lease". But usually in an Operating Lease, it is lessee who has to pay for maintenance and service costs and such a lease is known as "net lease".
 - (v) A Financial Lease usually provides the lessee an option of renewing the lease for further period at a normal rent.
-
- (b) For making a proper use of ratios, it is essential to have fixed standards for comparison. A ratio by itself has very little meaning unless it is compared to some appropriate standard. The four most common standards used in ratio analysis in Financial Management are: absolute, historical, horizontal and budgeted.

Absolute: Absolute standards are those which become generally recognized as being desirable regardless of the type of company, the time, stage of business cycle and the objectives of the analyst.

Historical: Historical (also known as internal) standards involves comparing a company's own past performance as a standard for the present or future. But this standard may not provide a sound basis for judgment as the historical figure may not have represented an acceptable standard. It is also called as intra firm comparison.

Horizontal: In case of horizontal (external) standards, one company is compared with another or with the average of other companies of the same nature. It is also called as inter-firm comparison.

Budgeted: The budgeted standard is arrived at after preparing the budget for a period. Ratio developed from actual performance are compared to the planned ratios in the budget in order to examine the degree of accomplishment of the anticipated targets of the firm.

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

| | Funds Flow Statement | Cash Flow Statement |
|------|---|---|
| I. | 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. |
| II. | Funds Flow Statement is based on accounting. | Cash Flow Statement is based on cash basis of accounting |
| III. | 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. |
| IV. | 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. |

- (d) Financial leverage is based on the assumption that firm is to earn more on the assets that acquired by the use of Funds on which a Fixed Rate of interest/dividend is to be paid. Financial leverage can be calculated as follows:

$$\text{Financial leverage} = \text{EBIT}/\text{EBT}$$

The Financial leverage increase the reward to the shareholders, as by increasing the debt, the organization enjoys the tax benefit as the interest on the debt capital is chargeable to the profit, thus reducing the tax burden. Again the Profit Before Tax (PBT) will be higher with lower or nil interest on debt, leading to high incidence of Corporation tax. The Balance representing Profit After Tax (PAT) become proportionately lower when such PAT is related to the higher equity capital and lower or nil debt capital. As the shareholder's reward is the PAT earned against the volume of capital invested, the financial leverage increase the potential reward to the shareholders. Further, Increase in Equity to finance low risk activities will lead to lower return for shareholders. Companies having lower risk cash flow can therefore enhance the shareholders return by increasing the debt instead of Equity. The net operating surplus represents PAT when related to the lower level of paid up share capital shows a higher reward to the shareholder.