Paper – 8: Cost Accounting & Financial Management

Full Marks: 100 Time Allowed: 3 Hours

This paper contains 3 questions. All questions are compulsory, subject to instruction provided against each question. All workings must form part of your answer. Assumptions, if any, must be clearly indicated.

1. Answer all questions:

[2×10=20]

(a) The following data relating to a machine is available:

Cost of the machine is ₹40,000; estimated scrap value is ₹4,000. Working life = 6 years. The machine had to be discarded at the end of 4th year due to obsolescence and was sold for ₹8,000. What is the resultant loss? (Use straight line depreciation on net value).

(b) A concern producing a single product estimates the following expenses for a production period.

| Particulars | ₹ |
|-------------------|----------|
| Direct Material | 25,000 |
| Direct Labour | 25,000 |
| Direct Expenses | 2,500 |
| Overhead Expenses | 1,05,000 |

What will be the overhead recovery rate based on prime cost?

(c) A work measurement study was carried out in a firm for 10 hours and the following information was generated:

| Units produced | 350 |
|--------------------|----------------------|
| Idle time | 10% |
| Performance rating | 125% |
| Allowance time | 10% of standard time |

What is the standard time for task?

(d) Calculate the total wages earned by a workman for a working day of 8 hours under Rowan plan:

| • | Standard production per hour | 20 units |
|---|------------------------------|-----------|
| • | Actual production of the day | 200 units |
| • | Wages rate per hour | ₹ 30 |

| (e) Number of employees at the beginning of the year | — 300 |
|--|-----------------|
| Number of employees at the end of the year | 400 |
| Number of employees resigned | - 40 |
| Number of employees discharged | — 10 |
| Number of employees replaced due to resignation and discharges | 40 |

Calculate the Labour Turnover rate for the factory under Flux Methods.

(f) Compute the Maximum Stock Level from the following information:

Normal Usaae = 50 per week;

Reorder quantity = 500

Maximum usage = 75 per week Minimum usage = 25 per week Re-order period:2 to 4 weeks.

(g) Find out operating leverage from the following data:

| Sales | ₹1,00,000 |
|----------------|-----------|
| Variable Costs | 60% |
| Fixed Costs | ₹24,000 |

- (h) Vividha Ltd. has paid a dividend of ₹ 5 per share with annual growth rate of 8%. The expected return on the market portfolio and the risk free rate of return are estimated to be 15% and 10% respectively. What will be the Required Return, if the market sensitivity index (B) is 1.5?
- (i) Cactus Limited paid a dividend of ₹5 per share for 2013-14. The company follows a fixed dividend payout ratio of 60%. The company earns a return of 20% on its investment. The cost of capital to the company is 14%. What would be the expected market price of its share, using the Walter Model?
- (i) A company has a profit margin of 20% and asset turnover of 3 times. What is the company's return on investment, if the profit margin is decreased by 5% and asset turnover is increase to 4 times?

2. Answer any three questions.

[3×16=48]

- (a) (i) "The more kilometers you travel with your own vehicle, the cheaper it becomes." Comment briefly on this statement.
 - (ii) The following details have been obtained from the cost records of Comet Paints Limited:

| | (₹) |
|--|----------|
| Stock of raw materials on 1st Sept. 2013 | 75,500 |
| Stock of raw materials on 30 th Sept. 2013 | 91,500 |
| Direct Wages | 52,500 |
| Indirect wages | 2,750 |
| Sales | 2,11,000 |
| Work-in-progress on 1st Sept. 2013 | 28,000 |
| Work-in-progress on 30 th Sept. 2013 | 35,000 |
| Purchase of raw materials | 66,000 |
| Factory rent rates and power | 15,000 |
| Depreciation of plant and machinery | 3,500 |
| Expenses on purchases | 1,500 |
| Carriage outwards | 2,500 |
| Advertising | 3,500 |
| Office rent and taxes | 2,500 |
| Travelers wages and commission | 6,500 |
| Stock of finished goods on 1st Sept. 2013 | 54,000 |
| Stock of finished goods on 30 th Sept. 2013 | 31,000 |

Prepare a Cost Sheet giving the maximum possible break up of costs and profits.

(iii) A manufacturing unit produces two products X and Y. The following information is furnished:

| Particulars | Product X | Product Y |
|------------------------------|-----------|-----------|
| Units Produced (Qty) | 20,000 | 15,000 |
| Units Sold (Qty) | 15,000 | 12,000 |
| Machine Hours Utilised | 10,000 | 5,000 |
| Design Charges | 15,000 | 18,000 |
| Software development charges | 30,000 | 38,000 |

Royalty paid on sales ₹54,000 [@ ₹2.5 per unit sold, for both the products]; Royalty paid on units produced ₹35,000 [@ ₹1 per unit purchased, for both the products], Hire charges of equipment used in manufacturing process of Product X only ₹7,500, Compute the Direct Expenses as per CAS 10.

- (b) (i) List the items to be included and to be excluded while measuring the employee cost as per CAS - 7. [7]
 - (ii) In a factory bonus to workman is paid according to Rowan Plan. Time allotted for a job is 40 hours and the normal rate of wages is ₹ 1.25 per hour. The factory overhead charges are 50 paise per hour for the hours taken. The factory cost of a work order, executed by a worker is ₹161.875. The cost of material in each case is ₹ 100. Calculate the hours of time taken by the workman to complete the work order. [6]
 - (iii) Write a note on Blanket (Single) Overhead Rate.

[3]

[7]

- (c) (i) Write short notes on Generally Accepted Cost Accounting Principles (GACAP).
 - (ii) A machinery was purchased from a manufacturer who claimed that his machine could produce 36.5 tonnes in a year consisting of 365 days. Holidays, breakdown, etc., were normally allowed in the factory for 65 days. Sales were expected to be 25 tonnes during the year and the plant actually produced 25.2 tonnes during the year.

You are required to state the following figures: Rated Capacity; Practical Capacity; Normal Capacity; Actual Capacity. [4]

- (iii) How to treat
 - "Interest on Borrowing for Working Capital"
 - "Writing off Obsolete Inventory".

[3+2=5]

(d) (i) In a manufacturing unit, overhead was recovered at a predetermined rate of ₹25 per man-day. The total factory overhead incurred and the man-days actually worked were ₹41,50,000 and 1,50,000 respectively. Out of the 40,000 units produced during a period 30,000 units were sold. There were also 30,000 uncompleted units which may be reckoned at 66.67% complete.

On analyzing the reasons, it was found that 40% of the unabsorbed overheads were due to defective planning and the rest were attributable to increase overhead costs.

How would unabsorbed overhead be treated in Cost Account?

[5]

- (ii) Purchase of Materials ₹ 2,00,000 (inclusive of Trade Discount ₹ 3,000); Fee on Board ₹ 10,000; Import Duty paid ₹ 15,000; Freight inward ₹ 20,000; Insurance paid for import by sea ₹ 11,000; Rebates allowed ₹ 4,000; Cash discount ₹ 3,000; CENVAT Credit refundable ₹ 7,000; Subsidy received from the Government for importation of these materials ₹ 20,000. Compute the landed cost of material (i.e. value of receipt of material).
- (iii) Basic pay ₹5,00,000; Accommodation provided to employee free of cost [this accommodation is owned by the employer, depreciation of accommodation ₹90,000, maintenance charges of the accommodation ₹65,000 and municipal tax paid for this accommodation ₹5,000], Employer's Contribution to P.F. ₹75,000, Employee's Contribution to P.F. ₹75,000; Reimbursement of Medical expenses ₹65,000, Festival Bonus ₹20,000, Festival Advance ₹30,000. Compute the Employee cost.

3. Answer any two questions.

[2×16=32]

(a) (i) Write a note on GATT.

[3]

(ii) State the needs of Capital Budgeting Decisions.

[6]

(iii) Calculate the level of earnings before interest and tax (EBIT) at which the EPS indifference point between the following financing alternatives will occur.

Equity share capital of ₹ 6,00,000 and 12% Debentures of ₹ 4,00,000.

- To Equity share capital of ₹ 4,00,000, 14% Preference share capital of ₹ 2,00,000 and 12% Debentures of ₹ 4,00,000.
- Assume the corporate tax rate is 35% and par value of equity share is ₹ 10 in each case.

[3+4=7]

- (b) (i) A company operates at a production level of 1,000 units. The contribution is ₹60 per unit, operating leverage is 6, and combined leverage is 24. If tax rate is 30%, what would be its earnings after tax. [5]
 - (ii) Sea Ltd. has issued 14% convertible debentures of ₹ 100each at per. Each debenture will be convertible into 8 equity shares of ₹ 10 each at a premium of ₹ 5 per share. The conversion will take place at the end of 4 years. The corporate tax rate is assumed to be 40%. Assume that tax savings occur in the same year that the interest payments arise. The flotation cost is 5% of the issue amount. Calculate the cost of convertible debentures. [3]
 - (iii) Sampa Ltd is evaluating a project costing ₹20 lakhs. The Project generates savings of ₹2.95 lakhs per annum to perpetuity. The business risk of the project warrants a rate of return of 15%.
 - i. Calculate Base case NPV of the project assuming no tax.
 - Assuming Tax Rate of 30% with 12% Cost of Debt constituting 30% of the cost of the project, determine Adjusted Present Value.
 - Find out minimum acceptable Base Case NPV, as well as Minimum IRR.

[2+3+3=8]

(c) (i) Ambar Limited had the following condensed Trial Balance as at 31.03.2013:

| 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 2013-2014, 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 2013-2014 was ₹ 28,450 after allowing for depreciation of ₹ 9,500.
- Land was purchased through the issuance of ₹22,500 in bonds.
- Ambar 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 31-3-2014.
- Accounts receivable at 31-3-2014 total ₹ 38,000.

Prepare a statement of cash flows for 2013-2014, under indirect method.

[8]

(ii) The directors of Virat Limited are contemplating the purchase of a new machine to replace a machine which has been in operation in the factory for the last 5 years.

Ignoring interest but considering tax at 50% of net earnings, suggest which of the two alternatives should be preferred. The following are the details:

| Particulars | Existing Machine | New Machine |
|---------------------------------|------------------|-------------|
| Purchase price | ₹40,000 | ₹60,000 |
| Estimated life of machine | 10 years | 10 years |
| Machine running hours per annum | 2,000 | 2,000 |
| Units per hour | 12 | 18 |
| Wages per running hour | 3 | 5.25 |
| Power per annum | 2,000 | 4,500 |
| Consumables stores per annum | 6,000 | 7,500 |
| All other charges per annum | 8,000 | 9,000 |
| Materials cost per unit | 1.00 | 1.00 |
| Selling price per unit | 2.50 | 2.50 |

| You may assume that the above information regarding sales and cost of sales will hold good throughout the economic life of each of the machines. Depreciation has to be charged according to straight-line method. |
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