



Time Allowed: 3 Hours

Full Marks: 100

The figures in the margin on the right side indicate full marks.

SECTION – A (Compulsory)

1. Choose the correct option: [15 x 2 = 30]

- (i) _____ is the study of managerial aspects of financial accounting.
- Cost accounting
 - Financial accounting
 - Management accounting
 - Business accounting
- (ii) Process of Cost allocation under Activity Based Costing is:
- Cost of Activities—Activities—Cost Driver – Cost allocated to cost objects
 - Cost Driver — Cost of Activities— Cost allocated to cost objects – Activities
 - Activities— Cost of Activities—Cost Driver – Cost allocated to cost objects
 - Activities—Cost Driver – Cost allocated to cost objects — Cost of Activities
- (iii) Plant depreciation is an example of which activity-level group?
- Unit-level activity
 - Facility-level activity
 - Batch-level activity
 - Product-level activity
- (iv) A decrease in sales price
- does not affect the break-even point
 - lowers the fixed cost
 - Increases the break-even point
 - lowers the break-even point
- (v) What will be the margin of safety if sales is ₹3,00,000 and B.E.P is ₹ 4,50,000?
- ₹1,00,000
 - ₹1,50,000
 - Amount of sales < B.E.P, therefore no margin of safety
 - None of the above
- (vi) The costing method where fixed factory overheads are added to inventory, is called:
- Activity-based costing
 - Absorption costing



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- c. Marginal costing
d. All of the above
- (vii) Product A generates a contribution to sales ratio of 40%. Fixed cost directly attributable to Product A amounted to ₹60,000. The sales revenue required to achieve a profit of ₹15,000 is:
- a. ₹ 2,00,000
b. ₹ 1,85,000
c. ₹1,87,500
d. ₹ 2,10,000
- (viii) M Group has two divisions, Division P and Division Q. Division P manufactures an item that is transferred to Division Q. The item has no external market and 6,000 units produced are transferred internally each year. The costs of each division are as follows:
- | | Division P | Division Q |
|----------------------|----------------|----------------|
| Variable Cost | ₹ 100 per unit | ₹ 120 per unit |
| Fixed cost each year | ₹ 1,20,000 | ₹ 90,000 |
- Head Office management decided that a transfer price should be set that provides a profit of ₹ 30,000 to Division P. What should be the transfer price per unit?
- a. ₹ 145
b. ₹ 125
c. ₹ 120
d. ₹ 135
- (ix) Which one of the following is not considered as a method of Transfer Pricing?
- a. Negotiated Transfer Pricing
b. Market Price Based Transfer Pricing
c. Fixed Cost Based Transfer Pricing
d. Opportunity Cost Based Transfer Pricing
- (x) If standard cost > actual, then it is:
- a. Not favourable
b. Favourable
c. Neither favourable nor not favourable
d. None of the above.
- (xi) What is the labour rate variance if standard hours for 100 units of output are 400 @ ₹ 2 per hour and actual hours taken are 380 @ ₹ 2.25 per hour?
- a. ₹120 (A)
b. ₹100 (A)
c. ₹95 (A)



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d. ₹ 25 (F)

- (xii) A budgeting process which demands each manager to justify his entire budget in detail from beginning is:
- Functional budget
 - Master budget
 - Zero base budgeting
 - None of the above

(xiii) The following ratios have been calculated for a company:

Gross profit margin	42%
Operating profit margin	28%
Gearing (debt/equity)	40%
Asset turnover	65%

What is the return on capital employed for the company?

- 27.3%
 - 18.2%
 - 11.2%
 - 16.8%
- (xiv) Which of the following is responsibility center?
- Expense center
 - Profit center
 - Investment center
 - All of the above.
- (xv) The minimum expected opportunity loss (EOL) is
- Equal to EVPI
 - Minimum regret
 - Equal to EMV
 - Both (A) and (B)

SECTION-B

(Answer any 5 questions out of 7 questions given. Each question carries 14 marks.)

[5x14=70]

2. (a) Describe the functions of a Management Accountant in Modern Business World. [7]
- (b) A manufacturing company has three accounts clerks responsible for processing purchase invoices of suppliers. Each clerk is paid a salary of ₹1,50,000 per annum and is capable of processing 5,000 purchase invoices per year. In addition to the salary, the company spends ₹45,000 per year for printing of forms, postage etc.



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(assuming that 15,000 purchase invoices are processed).

During the year, 12,500 purchase invoices were processed. You are required to:

1. Calculate the activity rate for the purchase order activity. Break the activity rate into fixed and variable components.
2. Calculate the total activity availability and break this into activity usage and unused activity.
3. Calculate the total cost of resources supplied and break this into activity usage and unused activity. [7]

3. Susma Products Co. Ltd. manufactured and sold in a year 15,000 units of a particular product fetching a sales value of ₹15 lakhs. After charging direct material @ 30% on sales value, direct labour 20% on sales value, variable overheads ₹10 per unit, the company earned profit of ₹ $16\frac{2}{3}$ per unit during the year. The existing equipment can produce a maximum of 20,000 units per annum. In case, the demand exceeds the maximum output, new equipment will be required which will cost ₹10 lakhs and it will have a life span of 10 years, with no residual value.

A prospective customer is willing to place an order on the company for 10,000 units per year regularly at 90% of the present selling price, which will be, if accepted, over and above the existing market for 15,000 units.

Irrespective of the fact whether or not the new order materializes, the cost increases with immediate effect are:

1. 10% in the Direct Materials.
2. 25% in the Direct Labour.
3. ₹50,000 in Fixed Overheads per year.

If the order of additional 10,000 units is accepted, the fixed overhead will increase by another ₹50,000 by way of increased administration expenses.

You are required to determine whether the company should accept the new business at the stipulated price or decline the new offer and make a concerted sales drive to sell the present unused capacity at the present selling price. The sales drive will cost ₹ 60,000 per year.

Ignore the financial charges on the cost of the equipment and assume there is no opening and closing inventories. Variable costs will increase in direct proportion to the output. [14]

4. (a) REAXON LTD. a manufacturing company provides you the following details for the year 2023:

Sales (16,000 units)	₹16,00,000
Less Expenses (including ₹ 8,00,000 Fixed Expenses)	₹17,60,000
Net loss	₹ 1,60,000

The manager believes that an increase of ₹4,00,000 in advertising outlays will



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increase sales substantially. His plan was approved by the chairman of the board.

Required:

- (i) Calculate P/V Ratio and Break Even Sales.
- (ii) Calculate what additional sales will be required to offset that increase in advertisement outlays.
- (iii) Determine what should be selling price per unit if the breakeven point is brought down to 20,000 units? [7]

- (b) XYZ Co. purchases 40,000 glass cases per annum from an outside supplier at ₹ 5 each. The production manager feels that these should be manufactured and not purchased. A machine costing ₹ 1,00,000 (no salvage value) will be required to manufacture the item within the factory. The machine has an annual capacity of 60,000 units and life of 5 years. The costs required for manufacture of each glass case is as follows:

Direct Materials ₹ 2.00

Direct Labour ₹ 1.00

Variable overheads 100% of Labour Cost

You are required to solve and decide:

- (i) should the company continue to purchase the glass cases from outside supplier or should it make them in the factory?
- (ii) should the company accept an order to supply 10000 glass cases to the market at a selling price of ₹ 4.50 per unit? [7]

5. Z Limited manufactures a standard product. The standard mix of it is:

Material X: 60% at ₹15 per kg.

Material Y: 40% at ₹10 per kg.

Normal loss in output is 20 percent of input due to shortage of material Y. The actual results for May, 2023 were:

Material X: 210 kg at ₹16 per kg.

Material Y: 190 kg at ₹10.50 per kg.

Actual output: 330 kg.

You are required to calculate:

- (i) Material Cost Variance
- (ii) Material Price Variance
- (iii) Material Usage Variance
- (iv) Material Mix Variance
- (v) Material Yield Variance. [14]



6. (a) The following information is extracted from the records of Aljhon Ltd. a manufacturing company using standard costing system for the month ending October, 2023:

	Budget	Actual
Fixed Overhead	10,000	12,000
Production(units)	2,000	2,100
Standard Time per Unit (hours)	10	—
Actual Hours Worked	—	21,000

Required to calculate the following Fixed Overhead Variances:

- (i) Fixed Overhead Cost Variance
(ii) Fixed Overhead Expenditure Variance
(iii) Fixed Overhead Volume Variance. [7]
- (b) With the following data for a 60% activity, prepare a budget for production at 80% and 100 % capacity Production at 60% capacity 300 units.
Materials: ₹ 100 per unit
Labour: ₹ 40 per unit
Expenses: ₹ 10 per unit
Factory expenses: ₹ 40,000 (40% fixed)
Administrative expenses: ₹ 30,000 (60% fixed). [7]
7. (a) An investment centre has net assets of ₹8,00,000, and made profits before interest of ₹1,60,000. The notional cost of capital is 12%. This is the company's target return. An opportunity has arisen to invest in a new project costing ₹1,00,000. The project would have a four-year life, and would make profits of ₹15,000 each year.
Required to compute:
(A) What would be the ROI with and without the investment? (Base your calculations on opening book values). Determine would the investment centre manager wish to undertake the investment if performance is judged on ROI.
(B) What would be the average annual RI with and without the investment? (Base your calculations on opening book values). Determine would the investment centre manager wish to undertake the investment if performance is judged on RI? [7]
- (b) Describe the four perspectives of the Balanced Scorecard. [7]
8. (a) B Ltd. has a new wonder product, the V, of which it expects great things. At the moment the company has two courses of action open to it, to test market the product or abandon it.



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If the company test markets it, the cost will be ₹ 1,00,000 and the market response could be positive or negative with probabilities of 0.60 and 0.40.

If the response is positive the company could either abandon the product or market it full scale.

If it markets the V in full scale, the outcome might be low, medium or high demand, and the respective net gains/ (losses) would be (200), 200 or 1,000 in units of ₹1,000 (the result could range from a net loss of ₹ 2,00,000 to a gain of ₹10,00,000). These outcomes have probabilities of 0.20, 0.50 and 0.30 respectively.

If the result of the test marketing is negative and the company goes ahead and markets the product, estimated losses would be ₹ 6,00,000.

If, at any point, the company abandons the product, there would be a net gain of ₹ 50,000 from the sale of scrap. All the financial values have been discounted to the present.

Required:

Prepare and draw a decision tree and also include figures for cost, loss or profit on the appropriate branches of the tree. [7]

- (b) Explain briefly the concept of Revenue Center. [7]