MODEL ANSWERS

PAPER - 12

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SET 1

MANAGEMENT ACCOUNTING

Time Allowed: 3 Hours

Full Marks: 100

 $[15 \times 2 = 30]$

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

SECTION - A (Compulsory)

1. Choose the correct option:

- i. Creation of value through effective use of resources is the focus area of the _____.
 - a. 1^{st} stage
 - b. 2nd stage
 - c. 3rd stage
 - d. 4th stage
- ii. Which personnel of a financial firm play a key role in management accounting?
 - a. Investors
 - b. Suppliers
 - c. Managers
 - d. Customers

iii. Activity based cost systems would probably provide the greatest benefits for organizations that use

- a. Job order costing.
- b. Process costing
- c. Standard costing
- d. Historical costing
- iv. Determine sales in rupees for desired profit if fixed cost is ₹10,000, Variable cost is ₹30,000, Sales is ₹50,000 and desired profit is ₹5,000:
 - a. ₹73,500.
 - b. ₹75,000.
 - c. ₹5,000.
 - d. ₹37,500
- v. For the coming year, a manufacturing company has budgeted as under:

Contribution/Sales (C/S) Ratio = 45%

Margin of Safety Ratio = $33\frac{1}{2}$ %

Fixed Costs = ₹ 5, 85,000. Determine Profit for the coming year.

- a. ₹3,25,000
- b. ₹2,92,500
- c. ₹3,00,000
- d. ₹2,50,000



INTERMEDIATE EXAMINATION MODEL ANSWERS

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- vi. A company has a break-even point when sales are ₹3,20,000 and variable cost at that level of sales are ₹2,00,000. How much would contribution margin increase or decrease if variable expenses are dropped by ₹30,000?
 - a. Increase by 27.5%.
 - b. Increase by 9.375%.
 - c. Decrease by 9.375%.
 - d. Increase by 37.5%.
- vii. XYZ factory working for 50 hours per week employs hundred workers on a job work. The standard output is 200 units per gang hour and standard rate is ₹ 1 per hour. During a week in June, five employees were paid @ ₹ 1.20 per hour and ten employees were paid @ 80 paise per hour. Rest of the employees was paid @ standard hour rate. The actual number of units produced was 10,200. Determine labour cost variance:
 - a. ₹100 favourable
 - b. ₹150 unfavourable
 - c. ₹150 favourable.
 - d. ₹100 unfavourable
- viii. _____ is designed after assessment of the volume of output to be produced during budget period.
 - a. Cost budget;
 - b. Sales budget;
 - c. Production budget
 - d. Functional budget.
- ix. A factory produces two types of articles Y and Z. Article Y takes 8 hours to make and Z takes 16 hours. In a month (25 days × 8 hours) 600 units of X and 400 units of Z are produced. Given budgeted hours 8000 per month and men employed are 50. Determine Activity ratio, Capacity ratio and efficiency ratio.
 - a. 112%, 140%, 140%.
 - b. 140%, 112%, 140%
 - c. 140%, 140%, 112%
 - d. None of the above
- x. According to Kaplan & Norton, which of the balanced scorecard perspectives serves as the focus of the other perspectives?
 - a. Learning & growth.
 - b. Internal business processes.
 - c. Customer.
 - d. Financial



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- xi. There are three departments A, B and C in a company. The sales of A, B and C are ₹3, 52,000, ₹2, 88,000 and ₹1, 60,000, respectively. The variable costs of A, B and C are ₹2, 40,000, ₹1, 76,000 and ₹1, 44,000 respectively. The direct fixed costs of A, B and C are ₹28,000, ₹22,400 and ₹12,800. Rank the different departments on basis of relative profitability.
 - a. A- Rank 3, B- Rank 1 and C- Rank 2;
 - b. A- Rank 2, B- Rank 1 and C- Rank 3;
 - c. A- Rank 3, B- Rank 2 and C- Rank 1
 - d. Insufficient data;
- xii. The sequence of possible managerial decisions and their expected outcome under each set of circumstances can be represented and analysed by using _____
 - a. the minimax regret criterion.
 - b. a decision tree.
 - c. a payoff matrix.
 - d. Simulation.

xiii. Details of fixed overhead, production hours and production for a period are:

Budgeted hours	10000 hours
Standard fixed overheads per hour	₹10
Standard hours per unit of output	5 hours
Actual production	1920 units
Actual fixed overheads	₹94,000

Calculate fixed overhead cost variance.

- a. ₹3,000 (F)
- b. ₹3,000 (A)
- c. ₹2,000 (F)
- d. ₹2,000 (A)
- xiv. Division P transfers its output to Division Q at variable cost. Once a year P charges a fixed fee to Q, representing an allowance for P's fixed costs. This type of transfer pricing system is commonly known as:
 - a. Dual pricing
 - b. Two-part tariff transfer pricing
 - c. Opportunity cost based transfer pricing
 - d. Negotiated transfer pricing
- xv. Production budget is based upon
 - a. Sales budget
 - b. Factory capacity
 - c. Availability of raw material and labour
 - d. All of the above.



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Section – B

(Answer any five questions out of seven questions given. Each question carries 14 Marks) [5 x 14 = 70]

- 2. (a) Interpret the role and scope of management accounting with examples of its applications in business operations. [7]
- (b) As the newly appointed Management Accountant, your task is to implement Activity-Based Costing (ABC) to allocate overhead costs more accurately to Products A and B. The Cost Controller has expressed dissatisfaction with the current system of overhead allocation, and you are required to propose an improved method.

You have identified the following activities, budgeted costs, and activity consumption cost drivers as follows:

Activity	Budgeted Cost	Activity Consumption Cost Driver
Engineering	1,25,000	Engineering hours
Setups	3,00,000	Number of setups
Machine operation	15,00,000	Machine hours
Packing	75,000	Number of packing orders
Total	20,00,000	

You have also gathered the following operating data pertaining to each of its products:

	Product A	Product B	Total
Engineering hour	5,000	7,500	12,500
Number of setups	200	100	300
Machine hours	50,000	1,00,000	1,50,000
Number of packing orders	5,000	10,000	15,000

Task Summary:

- (i) Calculate the budgeted costs for each activity and its corresponding cost driver.
- (ii) Calculate the activity cost driver rates.
- (iii) Allocate overhead costs to Products A and B based on their consumption of each activity.
- (iv) Prepare a report summarizing the overhead allocation to each product, including the methodology and detailed calculation. [7]
- **3.** A company is engaged in three distinct lines of production. Their production cost per unit and selling prices are as under:

	Х	Y	Z
Production (Units)	3,000	2,000	5,000
	₹	₹	₹
Material Cost	18	26	30

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Wages	7	9	10
Variable overheads	2	3	3
Fixed Overheads	5	8	9
	<u>32</u>	<u>46</u>	<u>52</u>
Selling price	40	60	61
Profit	8	14	9

The management wants to discontinue one line and gives you the assurance that production in two other lines shall be raised by 50%.

They intend to discontinue the line which produces Article X as it is less profitable.

- (i) Do you agree to the scheme in principle?
- (ii) Analyze the decision of the management and show the necessary statements to support your decision. [14]
- 4. (a) A company is at present working at 90 per cent of its capacity and producing 13,500 units per annum. It operates a flexible budgetary control system. The following figures are obtained from its budget.

Particulars	90%	100%
Sales (₹)	15,00,000	16,00,000
Fixed expenses (₹)	3,00,500	3,00,600
Semi-fixed expenses (₹)	97,500	1,00,500
Variable expenses (₹)	1,45,000	1,49,500
Units made	13,500	15,000

Labour and material costs per unit are constant under present conditions. Profit margin is 10 per cent.

- (i) Examine the differential cost of producing 1,500 units by increasing capacity to 100%.
- (ii) What would you recommend for an export price for these 1,500 units taking into account that overseas prices are much lower than indigenous prices? [7]
- (b) Aurthor Company is a multidivisional company and its managers have been delegated full profit responsibility and autonomy to accept or reject transfers from other divisions.

Division X produces a sub-assembly with a ready competitive market. This sub-assembly is currently used by Division Y for a final product that is sold outside at \gtrless 1,200. Division X Charges Division Y market price for the sub-assembly which is ₹700 per unit. Variable costs are ₹520 and ₹600 for Divisions A and B respectively.

The manager of Division Y feels that Division X should transfer the subassembly, at a lower price than market because at this price, Division Y is unable to make a profit.

Required:

- (i) Evaluate Division Y's profit contribution if transfers are made at the market price and also the total contribution to profit for the company.
- (ii) Assume that Division A can sell all its production in the open market. Should Division X transfer goods to Division Y? If so, at what price.





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- (iii) Assume that Division X can sell in the open market only 500 units at ₹700 per unit out of 1,000 units that it can produce every month and that a 20 per cent reduction in price is necessary to sell at full capacity. Should transfers be made? If so, how many units should it transfer and at what price? Submit a schedule showing comparisons of contribution margins under three different alternatives to support your decision. [7]
- 5. ABC Ltd adopts a standard costing system. The standard output for a period is 20,000 units and the standard cost and profit per unit is as under:

Particulars	₹
Direct Material (3 units @ ₹1.50)	4.50
Direct Labour (3 Hrs. @ ₹1.00)	3.00
Direct Expenses	0.50
Factory Overheads : Variable	0.25
Fixed	0.30
Administration Overheads	0.30
Total Cost	8.85
Profit	1.15
Selling Price (fixed by government)	10.00

The actual production and sales for a period was 14,400 units. There has been no price revision by the Government during the period.

The following are the variances worked out at the end of the period.

		Favourable (₹)	Adverse (₹)
Direct Material			
	Price		4,250
	Usage	1,050	
Direct labour			
	Rate		4,000
	Efficiency	3,200	
Factory Overheads			
	Variable –	400	
	Expenditure		
	Fixed – Expenditure	400	
	Fixed – Volume		1,680
Administration			
Overheads			
	Expenditure		400
	Volume		1,680

You are required to: Ascertain the details of actual costs and prepare a Profit and Loss Statement

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for the period showing the actual Profit/Loss. Show the workings clearly. Reconcile the Actual Profit with Standard Profit. [14]

6. (a) Budgeted and actual sales for the month of December, 2024 of two products A and B of M/s. XY Ltd. were as follows:

	Budgeted		Actual	
Product	Budgeted Units	Sales	Actual Units	Sales Price / Unit
		Price/Unit (₹)		(₹)
А	6,000	₹5	5,000	5.00
			1,500	4.75
В	10,000	₹2	7,500	2.00
			1,750	8.50

Budgeted costs for Products A and B was ₹4.00 and ₹1.50 unit respectively. Work out from the above data the following variances. Budgeted costs for Products A and B was ₹4.00 and ₹1.50 unit respectively.

Calculate Sales Variances.

Prepare a flexible budget for overhead expenses on the basis of the following data and determine **(b)** the overhead rates at 70%, 80% and 90%.

Plant Capacity	At 80% capacity
	₹
VARIABLE OVERHEADS:	
Indirect labour	12,000
Stores including spares	4,000
SEMI VARIABLE:	
Power (30% - Fixed: 70% - Variable)	20,000
Repairs (60%- Fixed : 40% -Variable)	2,000
FIXED OVERHEADS:	
Depreciation	11,000
Insurance	3,000
Salaries	10,000
Total overheads	62,000
Estimated Direct Labour Hours	1,24,000
	[7]

7. (a) The following information is available of a concern. Calculate Economic Value Added (EVA). 12% Debt ₹ 2,000 crores Equity capital ₹500 crores Reserves and Surplus ₹7,500 crores Risk-free rate 9%

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	Beta factor 1.05	
	Market rate of return 19%	
	Equity (market) risk premium 10%	
	Operating profit after tax ₹ 2,100 crores	
	Tax rate = 30%	[7]
(b)	Describe the four perspectives of the Balanced Scorecard.	[7]

8. (a) TT Newsagents stocks a weekly health magazine. The owner buys the magazines for ₹0.30 each and sells them at the retail price of ₹0.50 each.

At the end of the week unsold magazines are obsolete and have no value. The estimated probability distribution for weekly demand is shown below.

Weekly demand in units	Probability
20	0.20
30	0.55
40	<u>0.25</u>
	1.00

You are required to calculate the following:

- (i) What is the expected value of demand?
- (ii) If the owner is to order a fixed quantity of magazines per week how many should that be? Assume no seasonal variations in demand. [7]
- (b) Explain the concept of performance reporting and identify the key requisites for implementing responsibility accounting in an organization. [7]