

Duration: 2.30 Hours

Marks: 75

- Note: 1. All questions carry 15 marks each
 2. Q.1 is compulsory and Q.2 to Q.5 have internal choice.
 3. Use of simple calculator is allowed.
 4. Working note should form part of your answer.

Q.1- A State whether following questions are TRUE or FALSE (any EIGHT) (08)

1. Value Engineering is concerned with new product
2. Kaizen costing emphasises on hiding problems
3. Back flush accounting is used for more complex products that requires many stages of manufacturing
4. Balance scorecard has five perspectives
5. BEP analysis is necessary only for newly established companies
6. In margin of safety, fixed cost is consider as period cost
7. The steeper the slope of learning curve, higher the cost of wastage per unit of output
8. Idle time variable is always favorable
9. Material yield variance arises due to change in wastage
10. Independent branch is cost center

Q.1- B Match the Column (any SEVEN) (07)

Column 1	Column 2
1. Bottom Line	a. Strategy to minimize Income Tax
2. ABC	b. Soundness of Business
3. Purchase at higher price	c. Measures degree of variation
4. Angle of incidence	d. Profit center
5. Decentralization of authority	e. Profits
6. Sigma	f. Cost Allocation
7. Production Department	g. Direct Cost
8. Controllable cost	h. Constructive Appraisal
9. Large margin of safety	i. Cost Center
10. Cost Audit	j. Profit region

- Q.2 A Karishma Ltd makes three main products, using broadly the same production methods and equipment for each. A conventional product costing system is used at present, although an activity-based costing (ABC) system is being considered. Details of the three products for a typical period are: (15)

Particulars	Hours per unit		Material per unit	Volume units
	Labour Hour	Machine hours		
Product X	0.5	1.5	20	750
Product Y	1.5	1	12	1250
Product Z	1	3	25	7000

Direct labour costs Rs. 6 per hour and production overheads are absorbed on a machine hour basis. The rate of absorption of production overheads is Rs. 28 per machine hour.

Requirements

- a) Calculate the cost per unit for each product using conventional methods.

Further analysis shows that the total of production overheads can be divided as follows

	%
Costs relating to set-up	35
Costs relating to machinery	20
Costs relating to material handling	15
Costs relating to inspection	30
Total production overhead	100

The following total activity volumes are associated with the product line for the period as a whole:

Particulars	No. of set up	Movement of materials	No. of inspections
Product X	75	12	150
Product Y	115	21	180
Product Z	480	87	670

- b) Calculate the cost per unit for each product using ABC principles.

OR

- Q.2 B A company is organized into two divisions. Division 'Mango Pulp' produces component which is used by division 'Mango Juice' in making a final product. The final product is sold at Rs 400 each. Division 'Mango Pulp' has a capacity to produce 2,000 units. and the entire quantity can be purchased by Division 'Mango Juice' (08)

Division 'Mango Pulp' informed that due to installation of new machines, its depreciation cost has gone up and hence wants to increase the price of the component to be supplied to division 'Mango Juice' to Rs 220. Division 'Mango Juice', however, can buy the component from the outside market at Rs 200 each. The variable costs of division 'Mango Pulp' is Rs 190 per unit and fixed cost Rs 20 per unit in manufacturing the final product. The variable costs of division 'Mango Juice' in manufacturing the final product by using the component is Rs 150 (excluding the component cost) and fixed cost of division 'Mango Juice' is Rs 10 per unit.

Required:

- If there are no alternative uses for the production facilities of 'Mango Pulp', will the company benefit if division 'Mango Juice' buys from outside suppliers at Rs 200 per components?
- If the internal facilities of Mango Pulp' are not otherwise idle and alternative use of the facilities will give an annual cash operating saving of Rs 30,000 to Division 'Mango Pulp', should Division 'Mango Juice' purchase the component from outside market.
- If there are no alternative uses for the production facilities of 'Mango Pulp', and selling price in the outside market drops by Rs 15, should Division 'Mango Juice' purchase from outside supplier.
- What should be the minimum transfer price, if division 'Mango Juice' decides to buy from division 'Mango Pulp'?

Q.2 C Explain the concept of value analysis & write in detail its steps. (07)

Q.3 A A retail dealer in stationery is currently selling 10,000 pens annually. He supplies the following details for the year ended 31st December 2015: (15)

Particulars	Rs.
Selling price per pen	100
Variable cost per pen	50
Fixed cost	
Salary to staff	2,40,000
General expenses	1,60,000
Advertising cost	80,000

As a cost accountant of the firm, you are required to answer the following each part independently.

- Calculate P/V Ratio
- Calculate breakeven point and margin of safety in units and in amount
- Assume that 12,000 new pens were sold in a year. Find out the net profit of the firm.
- Assume that for the year 2016 an additional staff salary of Rs. 60,000 is anticipated, and price of a pen is likely to be increased by 10% what should be the break-even point in number of pens and sales revenue
- If it is decided to introduce selling commission of Rs. 5 per pen how many pens would be required to be sold in a year to earn a net income of Rs. 1,60,000

OR

Handwritten calculations:

$$P.V \text{ Ratio} = \frac{100 - 50}{100} = \frac{50}{100} = 50\%$$

Sales	10,00,000	7,00,000	Sal
(-) V.C	5,00,000	500,000	(-) V.C
CON	20,00,000	11,00,000	CON
(-) F.C	4,80,000	5,00,000	
		<u>6,40,000</u>	
		F.C	4,80,000
Profit	1,60,000	<u>1,60,000</u>	

Q.3 B Asia Ltd. has a capacity to produce 50,000 units of a certain product. The schedule of selling prices is given below: (08)

volume of Sales (% of capacity)	Selling Price per unit (Rs.)
50	2
60	1.8
70	1.6
80	1.5
90	1.25
100	1.2

The variable cost for manufacturing is Rs. 1 per unit and total fixed cost is Rs. 20,000 per month.

- At which level profit will be maximum?
- would you change your decision if fixed cost per month changes

Level of activity	50%	60%	70%	80%	90%	100%
Fixed cost per month (Rs.)	20,000	20,000	20,000	22,000	23,000	24,000

Q.B C Explain in detail 'Learning Curve' (07)

Q.4 A (15)

Particulars	Products	Sales quantity (units)	Selling price per unit
Budgeted Sales	SOAP	600	30
	OIL	400	40
	CREAM	1000	80
Actual Sales	SOAP	440	36
	OIL	440	40
	CREAM	1320	76

Calculate the following Variances

1. Sales Value Variance
2. Sales Price Variance
3. Sales Quantity Variance
4. Sales Volume Variance
5. Sales Mix Variance

OR

Q.4 B

The budgeted vs actual comparison for division of bottled colors of Tam Tam Company (08)
at the end of half year is as follows:

Particulars	Budget	Actual
Sales	200	185
Material and other variable cost	120	109
Fixed cost	30	30
Sales promotion	10	7
Operating profit	40	39
Net working capital	100	103
Fixed assets	40	37

For this division, judge the performance by 1) variances 2) Profitability Ratios

Q.4 C

Explain in detail about fixed cost variance.

(07)

Q.5 A

What is DMAIC Approach?

(08)

Q.5 B

Explain the concept of Life cycle costing

(07)

OR

Q.5 C

Write Short Note (any three)

(15)

1. Benchmarking
2. Objectives of Cost Audit
3. Total Quality Management
4. Advantages and Disadvantages Standard Costing
5. Transfer Pricing Methods