(2 Hours) [Total Marks: 50]

Instructions:

i. All questions are compulsory and subject to internal choice.
ii. Figures to the right indicate full marks.
iii. Use of simple calculator is allowed.

Q1.

A. The results of a company for the last two years are as follows:

Years	Sales in Rs.	Profit in Rs.
2022	15000	17000
2023	2000	2500

You are required to calculate:

(i) P/V Ratio
(ii) Fixed Cost
(iii) B.E.P
(iv) The sales required to earn a profit of Rs. 4,000
(v) Profit when sales are Rs. 25,000
(vi) Margin of safety at a profit of Rs. 5,000 and
(vii) Variable costs of the two periods. **[14 Marks]**

OR

B. Present the following information to show to management:

(i) The marginal product cost and the contribution p u.
(ii) The total contribution and profits resulting from each of the following sales mix results.

Particulars	Product	Per Unit (Rs.)
Direct Material	A	20
Direct Material	B	18
Direct wage	A	6
Direct wage	B	4

Fixed Expenses – Rs. 1600
Variable expenses are allotted to products at 100% of direct wages
Sales Price - A Rs. 40
Sales Price - B Rs. 30
Sales Mixtures:

(a) 200 units of Product A and 100 units of Product B.
(b) 150 units of Product A and 150 units of Product B.
(c) 100 units of Product A and 200 units of Product B.
(d) 250 units of Product A and 50 units of Product B. **[14 Marks]**

Q2.

A. The standard mix of product A2 is as follows:

Kg	Material	Price per Kg (Rs.)
3,600	X	6
2,000	Y	4.5
2,400	Z	9.5

The standard loss in production is 10% of input. There is no scrap value. Actual production for a month was 7,425 Kgs. Actual consumption and purchases of material during the month were:

Kg	Material	Price per Kg (Rs.)
4,200	X	6.50
1,700	Y	4.25
2,600	Z	9.75

You are required to calculate the following variances.

i. Material Cost Variance
ii. Material Price Variance
iii. Material Mix Variance
iv. Material Yield Variance **[12 Marks]**

OR

B. A gang of workers normally consists of 30 men, 15 women and 10 boys. They are paid at standard rates per hour as man Rs.80, woman Rs.60 an boy Rs.40. In a normal working of a week of 40 hours, the gang is expected to produce 2,000 units of output.
During the week ended 31st December, 2023, the gang consisted of 40 men, 10 women and 5 boys. The actual wages paid per hour were man Rs.70, woman Rs. 65 and boy Rs.30. Actual units produced by the Gang 1,600 units.

Calculate:

1. Labour Cost Variance
2. Labour Rate Variance
3. Labour Efficiency Variance **[12 Marks]**

Q3.

A. The cost of an article at capacity level of 5,000 units is given below.

Particulars	Rs.	variable cost
Material Cost	25,000	100%
Labour Cost	15,000	100%
Power	1,250	80%
Repairs and Maintenance	2,000	75%
Stores	1,000	100%
Inspection	500	20%
Depreciation (Fixed)	10,000	
Administration overheads	5,000	25%
Selling overheads	3,000	50%
Total	62,750	
Cost per unit	12.55	

Find the unit cost of the product under each individual expenses at production levels of 4,000 units and 6,000 units. **[12 Marks]**

OR

B. Prepare cash budget of a Company for April, May and June 2023 in a columnar form using the following information:

Months	Sales (Rs.)	Purchases (Rs.)	Wages (Rs.)	Expenses (Rs.)
January	80,000	45,000	20,000	5,000
February	80,000	40,000	18,000	6,000
March	75,000	42,000	22,000	6,000
April	90,000	50,000	24,000	6,000
May	85,000	45,000	20,000	6,000
June	80,000	35,000	18,000	5,000

You are further informed that:

a. 10% of the purchases and 20% of the sales are for cash
b. The average collection period of the company is ½ month and the credit purchases are paid off regularly after one month.
c. Wages are paid half monthly and rent of Rs.500 is paid monthly.

d. Cash and Bank balance as on 1st April is Rs.15,000 and the Company wants to keep it on the end of every month at this figure, the excess cash being put in fixed deposits.

[12 Marks]

Q4.

A. Pankaj Automobiles distributes its goods to regional dealer using a single lorry. The dealer's premises are 80 km away by road. The lorry has a capacity of 10 tonnes and makes the journey twice a day fully loaded on the outward journeys and empty on return journey. The following information is available for a Four Weekly period during the year 2023:

Petrol Consumption	16 km per litre
Petrol Cost	Rs. 26 per litre
Oil	Rs. 200 per week
Driver's Wages	Rs. 800 per week
Repairs	Rs. 200 per week
Garage Rent	Rs. 300 per week
Cost of lorry (excluding tyres)	Rs. 9,00,000
Life of lorry	1,60,000 km.
Estimated sale value of lorry at the end of its life	Rs. 1,00,000
Cost of tyres	Rs. 12,500
Life of tyres	50,000 km.
Insurance	Rs. 13,000 per annum
Vehicle license cost	Rs. 2,600 per annum
Other overhead cost	Rs. 83,200 per annum

The lorry operates on a five day week.

Required:

1. A statement to show the total cost of operating the vehicle for the four weekly periods analyzed into running costs and fixed costs.
2. Calculate vehicle cost per kilometers and per tonne kilometers. **[12 Marks]**

OR

B. **Write short notes: (answer any three)** **[12 Marks]**

a. Operating costing of Hospital
b. Application of operating costing
c. Log book under operating costing
d. Operating costing of Hotel
e. Cost units under operating costing

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