(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. Zeta Ltd. produces and sales a single article at Rs. 40 each. The marginal cost of production is Rs. 24 each and fixed cost is Rs. 1,600 per annum.

# Calculate:

- i. P/V Ratio
- ii. The break-even sales (in Rs. and Nos.)
- iii. The sales to earn a profit of Rs. 2,000.
- Profit at sales of Rs. 12,000.
- New break even point if sales price is reduced by 10%.
- vi. Margin of safety at sales of Rs. 6,000 and
- vii. Selling price per unit if the break even point is reduced to 80 units. [14 Marks]

#### OR

- B. From the following information you are required to:
  - Calculate and present the marginal product cost and contribution per unit.
  - b. State which of the alternative sales mixes you would recommend to management and why?

Particulars	Product X Rs. Per Unit	Product Y Rs. Per Unit
Selling Price	500	400
Direct Materials	160	120
Direct Wages	120	80

Fixed overheads Rs. 1,50,000 and variable overheads are 150% of direct wages.

## Alternative sales mix:

- i. 2500 units of X and 2500 units of Y
- ii. Nil units of X and 4000 units of Y
- iii. 4000 units of X and 1000 units of Y

[14 Marks]

Q2. [12 Marks]

A. From the following particulars, calculate material variances including material subvariances. The standard mix required for a product is, Material M: 70% at standard price Rs.60 per kg and Material N: 30% at standard price Rs.90 per kg. Normal loss is 20% of total input.

Actual output obtained during the period was 4,800 Kg for which actual consumption of materials are:

Material M - 4,000 Kgs @ Rs.58 per kg

Material N - 2,200 Kgs @ Rs.85 per kg

OR

B. The standard labour employment and the actual labour engaged in a week for a job are as under: [12 Marks]

	Skilled Workers	Semi- Skilled Workers	Unskilled Workers
Standard no. of workers in the gang	32	12	6
Actual no of workers employed	28	18	4
Standard wage rate per hour (Rs.)	3	2	1
Actual wage rate per hour (Rs.)	4	3	2

During the 40 hours working week, the gang produced 1,800 standard labour hours of work. Calculate:

- i. Labour Cost Variance
- ii. Labour Rate Variance
- iii. Labour Efficiency Variance
- iv. Labour Mix Variance
- v. Labour Yield Variance

Q3.

[12 Marks]

A. For the production of 5,000 electrical tubes, the following are budgeted expenses for Angle Electronic Ltd.

Particulars Rs. P.U Particulars		Particulars	Rs. P.U
Total Cost of Sales	205	Factory Overheads (Rs. 1,50,000 fixed)	-
Direct Material	60	Selling Expense (10% Fixed)	30
Direct Labour	30 Administrative Expenses (Rs. 20,000 fixed)		10
Direct Expenses	10	Distribution Expenses (20% fixed)	10
Factory Overheads	25		

You are required to prepare the production budget of 3,000 and 6,000 electrical tubes.

OR

[12 Marks]

B. Prepare Cash Budget of Star Estate Ltd. From March, 2024 to Aug, 2024

Month/ Rs.	Sales	Purchases	Wages	Factory Exp	Administrative Exp	Selling & Distribution Exp
Jan	1,90,000	80,000	15,000	10,000	5,000	7,000
Feb	1,80,000	84,000	16,000	11,000	5,500	7,500
March	1,92,000	83,000	16,800	8,000	4,500	6,500
April	1,65,000	83,000	12,000	10,500	4,750	6,800
May	1,75,000	76,000	18,000	12,000	5,400	7,400
June	2,10,000	68,000	16,000	9,600	5,700	7,000
July	1,90,000	70,000	17,000	8,000	5,000	6,000
August	2,30,000	58,000	16,500	. 9,600	5,500	5,500

### Other information:

- Opening stock balance on 1<sup>st</sup> March, 2024 Rs. 30,000.
- 2. Period of credit allowed to customers and by suppliers one month

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- Lag in the payment of factory expenses, administrative expenses, Selling expenses and wages one month.
- 4. Machinery purchased for Rs. 40,000 in March payable on delivery.
- Building purchased in April for Rs. 1,60,000 payables in two equal instalments in May and July.
- Delay in the payment of wages one month.

Q4.

[12 Marks]

A. A person owns a bus that runs between Mumbai and Lonavala and back, for 10 days in a month. The distance from Mumbai to Lonavala is 150 Kms. The bus completes the trip from Mumbai to Lonavala and return in the same day. The bus goes another 10 days in a month towards Alibagh. The distance from Mumbai to Alibagh is 120 Kms. The trip is also completed on the same day. For the rest 4 days of its operation in a month it runs locally in Mumbai, covering daily distance of 40 Kms. Calculate the rate that the person should charge from passenger when he wants to earn the profit of 25% on his takings and also calculate the charge per passenger for both the out-station trips. The other information is given as follows:

Cost of the bus (Depreciation @ 20% p.a. Normal Capacity: 50 persons) Rs.6,00,000

Salary: Driver Rs. 5,000 per month

Salary: Conductor Rs.5,000 per month

Fixed Office overheads Rs.2,000 per month

Insurance Rs.7,200 per year

Fuel (consumed @ 4 Kms/litre) Rs.35 per litre

RTO tax Rs.600 per annum

Lubricant Oil Rs.10 per 100 Kms

Repairs and Maintenance Rs 500 per month

Permit fee Rs.300 per month

Passenger tax is 20% of the net takings. The bus is occupied 90% of its capacity while on Lonavala trip and 80% of its capacity while on Alibagh trip, but is fully occupied in its local journey.

OR

B. Write short notes: (4 Marks each)(Any Three)

[12 Marks]

- Importance of Operating Costing
- Types of Cost.
- Goods and passenger transport Costing
- 4. Limitation of Operating Costing
- 5. Unit cost of Hotel

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