CA INTERMEDIATE

SUBJECT- COSTING

Test Code – INP 2113

(Date :)

(Marks - 100)

TOPIC : FULL COURSE

Question **No. 1** is compulsory.

Attempt any **four** questions out of the remaining **five** questions.

QUESTION : 1(A)

M/s Zeba Private Limited allotted a standard time of 40 hours for a job and the rate perhour is Rs. 75. The actual time taken by a worker is 30 hours.

You are required to calculate the total earnings under the following plans:

(i) Halsey Premium Plan (Rate 50%)

(ii) Rowan Plan

(iii) Time Wage System

(iv) Piece Rate System

(v) Emerson Plan

(5 MARKS)

QUESTION : 1(B)

A manufacturing concern has provided following information related to fixed overheads:

	Standard	**Actual**
Output in a month	5000 units	4800 units
Working days in a month	25 days	23 days
Fixed overheads	Rs. 5,00,000	Rs. 4,90,000

Compute:

(i) Fixed overhead variance

(ii) Fixed overhead expenditure variance

(iii) Fixed overhead volume variance

(iv) Fixed overhead efficiency variance

(5 MARKS)

QUESTION : 1(C)

Surekha Limited produces 4,000 Litres of paints on a quarterly basis. Each Litre requires 2 kg of raw material. The cost of placing one order for raw material is Rs. 40 and the purchasing price of raw material is Rs. 50 per kg. The storage cost and interest cost is 2% and 6% per annum respectively. The lead time for procurement of raw material is 15 days.

Calculate Economic Order Quantity and Total Annual Inventory Cost in respect of the above raw material.

QUESTION : 1(D)

When volume is 4,000 units; average cost is Rs. 3.75 per unit. When volume is 5,000 units,average cost is Rs. 3.50 per unit. The Break-Even point is 6,000 units.
Calculate: (i) Variable Cost per unit (ii) Fixed Cost and (iii) Profit Volume Ratio.

(5 MARKS)

QUESTION : 2(A)

M/s Areeba Private Limited has a normal production capacity of 36,000 units of toys perannum. The estimated costs of production are as under:

(i) Direct Material — Rs. 40 per unit

(ii) Direct Labour — Rs. 30 per unit (subject to a minimum of Rs. 48,000 p.m.)

(iii) Factory Overheads:

- (a) Fixed — Rs. 3,60,000 per annum
- (b) Variable — Rs. 10 per unit
- (c) Semi - variable — Rs. 1,08,000 per annum up to 50% capacity and additional Rs. 46,800 for every 20% increase in capacity or any part thereof.

(iv) Administrative Overheads Rs. 5, 18,400 per annum (fixed)

(v) Selling overheads are incurred at Rs. 8 per unit.

(vi) Each unit of raw material yields scrap which is sold at the rate of Rs. 5 per unit.

(vii) In year 2019, the factory worked at 50% capacity for the first three months but itwas expected that it would work at 80% capacity for the remaining nine months.

(viii) During the first three months, the selling price per unit was Rs.145.

You are required to:

(i) Prepare a cost sheet showing Prime Cost, Works Cost, Cost of Production and Cost of Sales.

(ii) Calculate the selling price per unit for remaining nine months to achieve the total annual profit of Rs. 8,76,600.

(10 MARKS)

QUESTION : 2(B)

The following are the details of receipt and issue of material 'CXE' in a manufacturing Co.during the month of April 2019:

Date	Particulars	Quantity (kg)	Rate per kg
April 4	Purchase	3,000	Rs. 16
April8	Issue	1,000	
April15	Purchase	1,500	Rs. 18
April 20	Issue	1,200	
April 25	Return to supplier out of purchase made on April 15	300	
April 26	Issue	1,000	
April 28	Purchase	500	Rs. 17

Opening stock as on 01-04-2019 is 1,000 kg @ Rs. 15 per kg.

On 30th April, 2019 it was found that 50 kg of material 'CXE' was fraudulently misappropriated by the store assistant and never recovered by the Company.

Required:

(i) Prepare a store ledger account under each of the following method of pricing the issue:

(a) Weighted Average Method

(b) LIFO

(ii) What would be the value of material consumed and value of closing stock as on30-04-2019 as per these two methods?

(10 MARKS)

QUESTION : 3(A)

A hotel is being run in a Hill station with 200 single rooms. The hotel offers concessional rates during six off-season months in a year.

During this period, half of the full room rent is charged. The management's profit margin is targeted at 20% of the room rent. The following are the cost estimates and other details for th e year ending 31st March,2019:

(i) Occupancy during the season is 80% while in the off-season it is 40%.

(ii) Total investment in the hotel is Rs. 300 lakhs of which 80% relates to Buildings and thebalance to Furniture and other Equipment.

(iii) Room attendants are paid Rs. 15 per room per day on the basis of occupancy of rooms in amonth.

(iv) Expenses:

- Staff salary (excluding that of room attendants) Rs. 8,00,000
- Repairs to Buildings Rs. 3,00,000
- Laundry Charges Rs. 1,40,000
- Interior Charges Rs. 2,50,000
- Miscellaneous Expenses Rs. 2,00,200

(v) Annual Depreciation is to be provided on Buildings @ 5% and 15% on Furniture and otherEquipments on straight line method.

(vi) Monthly lighting charges are Rs. 110, except in four months in winter when it is Rs. 30 perroom and this cost is on the basis of full occupancy for a month.

You are required to work out the room rent chargeable per day both during the season and theoff-season months using the foregoing information.

(Assume a month to be of 30 days and winter season to be considered as part of off-season).

(10 MARKS)

QUESTION : 3(B)

A product passes through two distinct processes before completion. Following information are available in this respect :

	Process 1	Process 2
Raw materials used	10,000 units	
Raw material cost (per unit)	Rs. 75	
Transfer to next process/Finished good	9,000 units	8,200 units
Normal loss (on inputs)	5%	10%
Direct wages	Rs. 3,00,000	Rs. 5,60,000
Direct expenses	50% of direct wages	65% of direct wages
Manufacturing overheads	25% of direct wages	15% of direct wages
Realisable value of scrap (per unit)	Rs. 13.50	Rs. 145

8,000 units of finished goods were sold at a profit of 15% on cost. There was no opening and closing stock of work – in – progress.

Prepare :

(i) Process – 1 and Process – 2 Account

(ii) Finished goods Account

(iii) Normal Loss Account

(iv) Abnormal Loss Account

(v) Abnormal Gain Account

(10 MARKS)

QUESTION : 4(A)

MNO Ltd. manufactures two types of equipment A and B and absorbs overheads on the basis of direct labour hours. The budgeted overheads and direct labour hours for the month of March 2019 are Rs. 15,00,000 and 25,000 hours respectively. The information about the company's products is as follows:

	Equipment	
	A	B
Budgeted Production Volume	3,200 units	3,850 units
Direct Material Cost	Rs. 350 per unit	Rs. 400 per unit
Direct Labour Cost		
A: 3 hours @ Rs. 120 per hour	Rs. 360	
B: 4 hours @ Rs. 120 per hour		Rs. 480

Overheads of Rs. 15,00,000 can be identified with the following three major activities:

Order Processing:	Rs. 3,00,000
Machine Processing:	Rs. 10,00,000
Product Inspection:	Rs. 2,00,000

These activities are driven by the number of orders processed, machine hours worked and inspection hours respectively. The data relevant to these activities is as follows:

	Orders processed	Machine hours worked	Inspection hours
A	400	22,500	5,000
B	200	27,500	15,000
Total	600	50,000	20,000

Required:

(i) Prepare a statement showing the manufacturing cost per unit of each product using the absorption costing method assuming the budgeted manufacturing volume is attained.

(ii) Determine cost driver rates and prepare a statement showing the manufacturing cost per unit of each product using activity based costing, assuming the budgeted manufacturing volume is attained.

(iii) MNO Ltd.'s selling prices are based heavily on cost. By using direct labour hours as an application base, calculate the amount of cost distortion (under costed or over costed) for each equipment.

(10 MARKS)

QUESTION : 4(B)

AP Ltd. received a job order for supply and fitting of plumbing materials. Following arethe details related with the job work:

Direct Materials

AP Ltd. uses a weighted average method for the pricing of materials issues.

Opening stock of materials as on 12th August 2020:

- 15mm GI Pipe, 12 units of (15 feet size) @ Rs.600 each
- 20mm GI Pipe, 10 units of (15 feet size) @ Rs. 660 each
- Other fitting materials, 60 units @ Rs. 26 each
- Stainless Steel Faucet, 6 units @ Rs. 204 each
- Valve, 8 units @ Rs. 404 each

Purchases:

On 16th August 2020:

- 20mm GI Pipe, 30 units of (15 feet size) @ Rs. 610 each
- 10 units of Valve @ Rs. 402 each

On 18th August 2020:

- Other fitting materials, 150 units @ Rs. 28 each
- Stainless Steel Faucet, 15 units @ Rs. 209 each

On 27th August 2020:

- 15mm GI Pipe, 35 units of (15 feet size) @ Rs. 628 each
- 20mm GI Pipe, 20 units of (15 feet size) @ Rs. 660 each
- Valve, 14 units @ Rs. 424 each

Issues for the hostel job:

On 12th August 2020:

- 20mm GI Pipe, 2 units of (15 feet size)
- Other fitting materials, 18 units

On 17th August 2020:

- 15mm GI Pipe, 8 units of (15 feet size)
- Other fitting materials, 30 units

On 28th August 2020:

- 20mm GI Pipe, 2 units of (15 feet size)
- 15mm GI Pipe, 10 units of (15 feet size)
- Other fitting materials, 34 units
- Valve, 6 units

On 30th August 2020:

- Other fitting materials, 60 units
- Stainless Steel Faucet, 15 units

Direct Labour:

Plumber: 180 hours @ Rs.100 per hour (includes 12 hours overtime)

Helper: 192 hours @ Rs.70 per hour (includes 24 hours overtime)

Overtimes are paid at 1.5 times of the normal wage rate.

Overheads:

Overheads are applied @ Rs.26 per labour hour.

Pricing policy:

It is company's policy to price all orders based on achieving a profit margin of 25% onsales price.

You are required to

(a) CALCULATE the total cost of the job.

(b) CALCULATE the price to be charged from the customer.

(10 MARKS)

QUESTION : 5(A)

ABC Ltd. has three production departments P_1, P_2 and P_3 and two service departments S_1 and S_2. The following data are extracted from the records of the company for the monthof January, 2020:

	(Rs.)
Rent and rates	6,25,000
General lighting	7,50,000
Indirect wages	1,87,500
Power	25,00,000
Depreciation on machinery	5,00,000
Insurance of machinery	2,00,000

Other Information:

	P1	**P2**	**P3**	**S1**	**S2**
Direct wages (Rs.)	3,75,000	2,50,000	3,75,000	1,87,500	62,500
Horse Power of Machinesused	60	30	50	10	-
Cost of machinery (Rs.)	30,00,000	40,00,000	50,00,000	2,50,000	2,50,000
Floor space (Sq. ft)	2,000	2,500	3,000	2,000	500
Number of light points	10	15	20	10	5
Production hours worked	6,225	4,050	4,100	-	-

Expenses of the service departments S1 and S2 are reapportioned as below:

	P1	P2	P3	S1	S2
S1	20%	30%	40%	-	10%
S2	40%	20%	30%	10%	-

Required:

(i) COMPUTE overhead absorption rate per production hour for each production department.

(ii) DETERMINE the total cost of product X which is processed for manufacture in department P1, P2 and P3 for 5 hours, 3 hours and 4 hours respectively, given that its direct material cost is Rs.6,250 and direct labour cost is Rs.3,750.

(10 MARKS)

QUESTION :5(B)

The information of Z Ltd. for the year ended 31st March 2020 is as below:

	Amount (Rs.)
Direct materials	17,50,000
Direct wages	12,50,000
Variable factory overhead	9,50,000
Fixed factory overhead	12,00,000
Other variable costs	6,00,000
Other fixed costs	4,00,000
Profit	8,50,000
Sales	70,00,000

During the year, the company manufactured two products, X and Y, and the output and cost were:

	X	Y
Output (units)	8,000	4,000
Selling price per unit (Rs.)	600	550
Direct material per unit (Rs.)	140	157.50
Direct wages per unit (Rs.)	90	132.50

Variable factory overheads are absorbed as a percentage of direct wages and other variable costs are computed as:

Product X – Rs.40 per unit and Product Y- Rs.70 per unit

For the FY 2020-21, due to a pandemic, it is expected that demand for product X and Y will fall by 20% & 10% respectively. It is also expected that direct wages cost will raise by 20% and other fixed costs by 10%. Products will be required to be sold at a discount of20%.

You are required to:

(i) PREPARE product- wise profitability statement on marginal costing method for the FY 2019-20 and

(ii) PREPARE a budget for the FY 2020-21.

(10 MARKS)

QUESTION : 6

Answer any four of the following:

(a) Differentiate between "Cost Accounting and Management Accounting".

(b) DISCUSS the Escalation Clause in a Contract.

(c) DISCUSS the treatment of by-product cost in cost accounting.

(d) Differentiate between cost control and cost reduction.

(e) State the bases of apportionment of following overhead costs:

(i) Air-conditioning

(ii) Time keeping

(iii) Depreciation of plant and machinery

(iv) Power/steam consumption

(v) Electric power (Machine operation)

(4 × 5 = 20 MARKS)