(CA INTERMEDIATE MOCK TEST MAY 2021)

DATE: 11.04.2021 MAXIMUM MARKS: 100 TIMING: 3¼ Hours

PAPER : COSTING

Answer to questions are to be given only in English except in the case of candidates who have opted for Hindi Medium. If a candidate who has not opted for Hindi Medium. His/her answer in Hindi will not be valued.
Question No. 1 is compulsory.
Candidates are also required to answer any Four questions from the remaining Five Questions.
In case, any candidate answers extra question(s)/sub-question(s) over and above the required number, then only the requisite number of questions first answered in the answer book shall be valued and subsequent extra question(s) answered shall be ignored.
Wherever necessary, suitable assumptions may be made and disclosed by way of note.

Question 1:

(a) Ananya Ltd. produces a product 'Exe' using a raw material Dee. To produce one unit of Exe, 2 kg of Dee is required. As per the sales forecast conducted by the company, it will able to sale 10,000 units of Exe in the coming year. The following is the information regarding the raw material Dee:

(i) The Re-order quantity is 200 kg. less than the Economic Order Quantity (EOQ).
(ii) Maximum consumption per day is 20 kg. more than the average consumption per day.
(iii) There is an opening stock of 1,000 kg.
(iv) Time required to get the raw materials from the suppliers is 4 to 8 days.
(v) The purchase price is Rs. 125 per kg.

There is an opening stock of 900 units of the finished product Exe. The rate of interest charged by bank on Cash Credit facility is 13.76%.
To place an order company has to incur Rs. 720 on paper and documentation work.
From the above information FIND OUT the followings in relation to raw material Dee:

(a) Re-order Quantity
(b) Maximum Stock level
(c) Minimum Stock level
(d) CALCULATE the impact on the profitability of the company by not ordering the EOQ. [Take 364 days for a year]

(5 Marks)

(b) AK Ltd. has furnished the following standard cost data per unit of production:
Material 10 kg @ Rs. 100 per kg.
Labour 6 hours @ Rs. 55 per hour.
Variable overhead 6 hours @ Rs. 100 per hour.
Fixed overhead Rs. 45,00,000 per month (Based on a normal volume of 30,000 labour hrs) The actual cost data for the month of September 2020 are as follows:
Material used 50,000 kg at a cost of Rs. 52,50,000. Labour paid Rs. 15,50,000 for 31,000 hours Variable overheads Rs. 29,30,000.
Fixed overheads Rs. 47,00,000 Actual production 4,800 units. CALCULATE:

(i) Material Cost Variance.
(ii) Labour Cost Variance.
(iii) Fixed Overhead Cost Variance.
(iv) Variable Overhead Cost Variance.

(5 Marks)

(c) M Ltd. has an annual fixed cost of Rs. 98,50,000. In the year 20X8-X9, sales amounted to Rs. 7,80,60,000 as compared to Rs. 5,93,10,000 in the preceding year 20X7-X8. Profit in the year 20X8-X9 is Rs. 37,50,000 more than that in 20X7-X8.
Required:
(i) CALCULATE Break-even sales of the company;
(ii) DETERMINE profit/ loss on a forecasted sales volume of Rs. 8,20,00,000.
(iii) If there is a reduction in selling price by 10% in the financial year 20X8-X9 and company desires to earn the same amount of profit as in 20X7-X8, COMPUTE the required sales amount?

(5 Marks)

(d) The following information has been obtained from the records of a manufacturing unit:

	Rs.	**Rs.**
Sales 80,000 units @ Rs. 50		40,00,000
Material consumed	16,00,000	
Variable Overheads	4,00,000	
Labour Charges	8,00,000	
Fixed Overheads	7,20,000	35,20,000
Net Profit		4,80,000

CALCULATE:
(i) The number of units by selling which the company will neither lose nor gain anything.
(ii) The sales needed to earn a profit of 20% on sales.
(iii) The extra units which should be sold to obtain the present profit if it is proposed to reduce the selling price by 20% and 25%.
(iv) The selling price to be fixed to bring down its Break-even Point to 10,000 units under present conditions.

(5 Marks)

Question: 2

(a) You are given the following information of the three machines of a manufacturing department of X Ltd.:

	Preliminary estimates of expenses (per annum)			
	Total (Rs.)	**Machines**		
		A (Rs.)	**B (Rs.)**	**C (Rs.)**
Depreciation	2,00,000	75,000	75,000	50,000
Spare parts	1,00,000	40,000	40,000	20,000
Power	4,00,000			
Consumable stores	80,000	30,000	25,000	25,000
Insurance of machinery	80,000			
Indirect labour	2,00,000			
Building maintenance expenses	2,00,000			
Annual interest on capital outlay	1,00,000	40,000	40,000	20,000
Monthly charge for rent and rates	20,000			
Salary of foreman (per month)	42,000			
Salary of Attendant (per month)	12,000			

(The foreman and the attendant control all the three machines and spend equal time on them.)
The following additional information is also available:

	Machines		
	A	**B**	**C**
Estimated Direct Labour Hours	1,00,000	1,50,000	1,50,000
Ratio of K.W. Rating	3	2	3
Floor space (sq. ft.)	40,000	40,000	20,000

There are 12 holidays besides Sundays in the year, of which two were on Saturdays. The manufacturing department works 8 hours in a day but Saturdays are half days. All machines work at 90% capacity throughout the year and 2% is reasonable for breakdown.

You are required to :

CALCULATE predetermined machine hour rates for the above machines after taking into consideration the following factors:

- An increase of 15% in the price of spare parts.
- An increase of 25% in the consumption of spare parts for machine 'B' & 'C' only.
- 20% general increase in wages rates.

(10 Marks)

(b) AP Ltd. received a job order for supply and fitting of plumbing materials. Following are the 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% on sales 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 3:

(a) M Ltd. produces a product-X, which passes through three processes, I, II and III. In Process-III a by-product arises, which after further processing at a cost of Rs.85 per unit, product Z is produced. The information related for the month of August 2020 is as follows:

	Process-I	**Process-II**	**Process-III**
Normal loss	5%	10%	5%
Materials introduced (7,000 units)	1,40,000	-	-
Other materials added	62,000	1,36,000	84,200
Direct wages	42,000	54,000	48,000
Direct expenses	14,000	16,000	14,000

Production overhead for the month is Rs. 2,88,000, which is absorbed as a percentage of direct wages.
The scrapes are sold at Rs. 10 per unit
Product-Z can be sold at Rs. 135 per unit with a selling cost of Rs. 15 per unit
No. of units produced:
Process-I- 6,600; Process-II- 5,200, Process-III- 4,800 and Product-Z- 600
There is not stock at the beginning and end of the month.
You are required to PREPARE accounts for:
(i) Process-I, II and III

(10 Marks)

(b) The financial books of a company reveal the following data for the year ended 31st March, 20X8:

Opening Stock:	**(Rs.)**
Finished goods 625 units	53,125
Work-in-process	46,000
01.04.20X7 to 31.03.20X8	
Raw materials consumed	8,40,000
Direct Labour	6,10,000
Factory overheads	4,22,000
Administration overheads (Production related)	1,98,000
Dividend paid	1,22,000
Bad Debts	18,000
Selling and Distribution Overheads	72,000
Interest received	38,000
Rent received	46,000
Sales 12,615 units	22,80,000
Closing Stock: Finished goods 415 units	45,650
Work-in-process	41,200

The cost records provide as under:
- Factory overheads are absorbed at 70% of direct wages.
- Administration overheads are recovered at 15% of factory cost.
- Selling and distribution overheads are charged at Rs. 3 per unit sold.
- Opening Stock of finished goods is valued at Rs. 120 per unit.
- The company values work-in-process at factory cost for both Financial and Cost Profit Reporting.

Required:

(i) PREPARE a statements for the year ended 31stMarch, 20X8. Show
- the profit as per financial records
- the profit as per costing records.

(ii) PREPARE a statement reconciling the profit as per costing records with the profit as per Financial Records.

(10 Marks)

Question 4:

(a) Family Store wants information about the profitability of individual product lines: Soft drinks, Fresh produce and Packaged food. Family store provides the following data for the year 20X7-X8 for each product line:

	Soft drinks	**Fresh produce**	**Packaged food**
Revenues	Rs. 39,67,500	Rs. 1,05,03,000	Rs. 60,49,500
Cost of goods sold	Rs. 30,00,000	Rs. 75,00,000	Rs. 45,00,000
Cost of bottles returned	Rs. 60,000	Rs. 0	Rs. 0
Number of purchase orders placed	360	840	360
Number of deliveries received	300	2,190	660
Hours of shelf-stocking time	540	5,400	2,700
Items sold	1,26,000	11,04,000	3,06,000

Family store also provides the following information for the year 20X7-X8:

Activity	Description of activity	Total Cost	Cost-allocation base
Bottles returns	Returning of empty bottles	Rs. 60,000	Direct tracing to soft drink line
Ordering	Placing of orders for purchases	Rs. 7,80,000	1,560 purchase orders
Delivery	Physical delivery and receipt of goods	Rs. 12,60,000	3,150 deliveries
Shelf stocking	Stocking of goods on store shelves and on-going restocking	Rs. 8,64,000	8,640 hours of shelf-stocking time
Customer Support	Assistance provided to customers including check-out	Rs. 15,36,000	15,36,000 items sold

Required:

(iii) Family store currently allocates support cost (all cost other than cost of goods sold) to product lines on the basis of cost of goods sold of each product line. CALCULATE the operating income and operating income as a % of revenues for each product line.

(iv) If Family Store allocates support costs (all costs other than cost of goods sold) to product lines using and activity based costing system, CALCULATE the operating income and operating income as a % of revenues for each product line.

(10 Marks)

(b) ABC Ltd. had prepared the following estimation for the month of April:

	Quantity	**Rate (Rs.)**	**Amount (Rs.)**
Material-A	800 kg.	45.00	36,000
Material-B	600 kg.	30.00	18,000
Skilled labour	1,000 hours	37.50	37,500
Unskilled labour	800 hours	22.00	17,600

Normal loss was expected to be 10% of total input materials and an idle labour time of 5% of expected labour hours was also estimated.
At the end of the month the following information has been collected from the cost accounting department:
The company has produced 1,480 kg. finished product by using the followings:

	Quantity	Rate (Rs.)	Amount (Rs.)
Material-A	900 kg.	43.00	38,700
Material-B	650 kg.	32.50	21,125
Skilled labour	1,200 hours	35.50	42,600
Unskilled labour	860 hours	23.00	19,780

You are required to CALCULATE:
(a) Material Cost Variance;
(b) Material Price Variance;
(c) Material Mix Variance;
(d) Material Yield Variance;
(e) Labour Cost Variance;
(f) Labour Efficiency Variance and
(g) Labour Yield Variance.

(10 Marks)

Question 5:

(a) AD Higher Secondary School (AHSS) offers courses for 11th& 12thstandard in three streams i.e. Arts, Commerce and Science. AHSS runs higher secondary classes along with primary and secondary classes but for accounting purpose it treats higher secondary as a separate responsibility centre. The Managing committee of the school wants to revise its fee structure for higher secondary students. The accountant of the school has provided the following details for a year:

	Amount (Rs.)
Teachers' salary (15 teachers × Rs. 35,000 × 12 months)	63,00,000
Principal's salary	14,40,000
Lab attendants' salary (2 attendants × Rs. 15,000 × 12 months)	3,60,000
Salary to library staff	1,44,000
Salary to peons (4 peons × Rs.10,000 × 12 months)	4,80,000
Salary to other staffs	4,80,000
Examinations expenditure	10,80,000
Office & Administration cost	15,20,000
Annual day expenses	4,50,000
Sports expenses	1,20,000

(i)

	Standard 11 & 12			Primary & Secondary
	Arts	Commerce	Science	
No. of students	120	360	180	840
Lab classes in a year	0	0	144	156
No. of examinations in a year	2	2	2	2
Time spent at library per student per year	180 hours	120 hours	240 hours	60 hours
Time spent by principal for administration	208 hours	312 hours	480 hours	1,400 hours
Teachers for 11 & 12 standard	4	5	6	-

(ii) One teacher who teaches economics for Arts stream students also teaches commerce stream students. The teacher takes 1,040 classes in a year, it includes 208 classes for commerce students.

(iii) There is another teacher who teaches mathematics for Science stream students also teaches business mathematics to commerce stream students. She takes 1,100 classes a year, it includes 160 classes for commerce students.

(iv) One peon is fully dedicated for higher secondary section. Other peons dedicate their 15% time for higher secondary section.

(v) All school students irrespective of section and age participates in annual functions and sports activities.

Required:

(i) CALCULATE cost per student per annum for all three streams.

(ii) If the management decides to take uniform fee of Rs. 1,000 per month from all higher secondary students, CALCULATE stream wise profitability.

(iii) If management decides to take 10% profit on cost, COMPUTE fee to be charged from the students of all three streams respectively.

(10 Marks)

(b) Following details are provided by M/s ZIA Private Limited for the quarter ending 30 September, 2018:

(i)	Direct expenses	Rs. 1,80,000
(ii)	Direct wages being 175% of factory overheads	Rs. 2,57,250
(iii)	Cost of goods sold	Rs. 18,75,000
(iv)	Selling & distribution overheads	Rs. 60,000
(v)	Sales	Rs. 22,10,000
(vi)	Administration overheads are 10% of factory overheads	

Stock details as per Stock Register:

Particulars	30.06.2018 (Rs.)	30.09.2018 (Rs.)
Raw material	2,45,600	2,08,000
Work-in-progress	1,70,800	1,90,000
Finished goods	3,10,000	2,75,000

You are required to prepare a cost sheet showing:

(i) Raw material consumed

(ii) Prime cost

(iii) Factory cost

(iv) Cost of goods sold

(v) Cost of sales and profit

(10 Marks)

Question 6:

(a) DISTINGUISH between Cost Control and Cost Reduction.

(5 Marks)

(b) DISCUSS the accounting treatment of Idle time and overtime wages.

(5 Marks)

(c) DISCUSS cost classification based on variability and controllability.

(5 Marks)

(d) Write short notes on any two of the following?

(i) Conversion cost

(ii) Sunk cost

(iii) Opportunity cost

(5 Marks)

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