(CA INTERMEDIATE MOCK TEST MAY 2021)

DATE: 28.02.2021 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) A company manufactures two types of herbal product, A and B. Its budget shows profit figures after apportioning the fixed joint cost of Rs. 15 lacs in the proportion of the numbers of units sold. The budget for 2018, indicates:

	A	B
Profit (Rs.)	1,50,000	30,000
Selling Price / unit (Rs.)	200	120
P/V Ratio (%)	40	50

Required:
COMPUTE the best option among the following, if the company expects that the number of units to be sold would be equal.

(i) Due to exchange in a manufacturing process, the joint fixed cost would be reduced by 15% and the variables would be increased by 7½ %.
(ii) Price of A could be increased by 20% as it is expected that the price elasticity of demand would be unity over the range of price.
(iii) Simultaneous introduction of both the option, viz, (i) and (ii) above.

(5 Marks)

(b) X Ltd. distributes' its goods to a regional dealer using single lorry. The dealer premises are 40 kms away by road. The capacity of the lorry is 10 tonnes. The lorry makes the journey twice a day fully loaded on the outward journey and empty on return journey. The following information is available:

Diesel Consumption	8 km per litre
Diesel Cost	Rs. 60 per litre
Engine Oil	Rs. 200 per week
Driver's Wages (fixed)	Rs. 2,500 per week
Repairs	Rs. 600 per week
Garage Rent	Rs. 800 per week
Cost of Lorry (excluding cost of tyres)	Rs. 9,50,000
Life of Lorry	1,60,000 kms
Insurance	Rs. 18,200 per annum
Cost of Tyres	Rs. 52,500
Life of Tyres	25,000 kms
Estimated sale value of the lorry at end of its life is	Rs. 1,50,000
Vehicle License Cost	Rs. 7,800 per annum
Other Overhead Cost	Rs. 41,600 per annum
	The lorry operates on a 5 day week.

Required:

(i) A statement to show the total cost of operating the vehicle for the four week period analysed into Running cost and Fixed cost.

(ii) Calculate the vehicle operating cost per km and per tonne km. (Assume 52 weeks in a year)

(5 Marks)

(c) Arnav Confectioners (AC) owns a bakery which is used to make bakery items like pastries, cakes and muffins. AC use to bake at least 50 units of any item at a time. A customer has given an order for 600 cakes. To process a batch, the following cost would be incurred:

Direct materials - Rs. 5,000

Direct wages - Rs. 500 (irrespective of units) Oven set- up cost - Rs. 750 (irrespective of units)

AC absorbs production overheads at a rate of 20% of direct wages cost. 10% is added to the total production cost of each batch to allow for selling, distribution and administration overheads.

AC requires a profit margin of 25% of sales value.

Required:

(i) DETERMINE the price to be charged for 600 cakes.

(ii) CALCULATE cost and selling price per cake.

(iii) DETERMINE what would be selling price per unit If the order is for 605 cakes.

(5 Marks)

(d) A job can be executed either through workman A or B. A takes 32 hours to complete the job while B finishes it in 30 hours. The standard time to finish the job is 40 hours.

The hourly wage rate is same for both the workers. In addition workman A is entitled to receive bonus according to Halsey plan (50%) sharing while B is paid bonus as per Rowan plan. The works overheads are absorbed on the job at Rs. 7.50 per labour hour worked. The factory cost of the job comes to Rs. 2,600 irrespective of the workman engaged.

INTERPRET the hourly wage rate and cost of raw materials input. Also show cost against each element of cost included in factory cost.

(5 Marks)

Question: 2

(a) The Union Ltd. has the following account balances and distribution of direct charges on 31st March, 2019.

	Total	Production Depts.		Service Depts.	
		Machine Shop	Packing	General Plant	Stores
Allocated Overheads:	(Rs.)	(Rs.)	(Rs.)	(Rs.)	(Rs.)
Indirect labour	29,000	8,000	6,000	4,000	11,000
Maintenance Material	9,900	3,400	1,600	2,100	2,800
Misc. supplies	5,900	1,500	2,900	900	600
Supervisor's salary	16,000	--	--	16,000	--
Cost & payroll salary	80,000	--	--	80,000	--

Overheads to be apportioned:	
Power	78,000
Rent	72,000
Fuel and Heat	60,000
Insurance	12,000
Taxes	8,400
Depreciation	1,20,000

The following data were compiled by means of the factory survey made in the previous year:

	Floor Space	Radiator Section	No. of employees	Investment	H.P. hours
Machine Shop	2,000 Sq. ft.	45	20	8,00,000	3,500
Packing	800 Sq. ft.	90	12	2,40,000	500
General Plant	400 Sq. ft.	30	4	80,000	-
Stores & maintenance	1,600 Sq. ft.	60	8	1,60,000	1,000

Expenses charged to the stores departments are to be distributed to the other departments by the following percentages:

Machine shop 50%; Packing 20%; General Plant 30%;

General Plant overheads is distributed on the basis of number of employees.

(a) PREPARE an overhead distribution statement with supporting schedules to show computations and basis of distribution.

DETERMINE the service department distribution by simultaneous equation method.

(10 Marks)

(b) Aditya Brothers supplies surgical gloves to nursing homes and polyclinics in the city. These surgical gloves are sold in pack of 10 pairs at price of Rs. 250 per pack.

For the month of April 2018, it has been anticipated that a demand for 60,000 packs of surgical gloves will arise. Aditya Brothers purchases these gloves from the manufacturer at Rs. 228 per pack within a 4 to 6 days lead time. The ordering and related cost is Rs. 240 per order. The storage cost is 10% p.a. of average inventory investment.

Required:

(i) CALCULATE the Economic Order Quantity (EOQ)

(ii) CALCULATE the number of orders needed every year

(iii) CALCULATE the total cost of ordering and storage of the surgical gloves.

DETERMINE when should the next order to be placed. (Assuming that the company does maintain a safety stock and that the present inventory level is 10,033 packs with a year of 360 working days).

(10 Marks)

Question 3:

(a) Star Ltd. manufactures chemical solutions for the food processing industry. The manufacturing takes place in a number of processes and the company uses FIFO method to value work-in-process and finished goods. At the end of the last month, a fire occurred in the factory and destroyed some of paper containing records of the process operations for the month.

Star Ltd. needs your help to prepare the process accounts for the month during which the fire occurred. You have been able to gather some information about the month's operating activities but some of the information could not be retrieved due to the damage. The following information was salvaged:

- Opening work-in-process at the beginning of the month was 800 litres, 70% complete for labour and 60% complete for overheads. Opening work-in-process was valued at Rs. 26,640.
- Closing work-in-process at the end of the month was 160 litres, 30% complete for labour and 20% complete for overheads.
- Normal loss is 10% of input and total losses during the month were 1,800 litres partly due to the fire damage.
- Output sent to finished goods warehouse was 4,200 litres.
- Losses have a scrap value of Rs. 15 per litre.

- All raw materials are added at the commencement of the process.
- The cost per equivalent unit (litre) is Rs. 39 for the month made up as follows:

	(Rs.)
Raw Material	23
Labour	7
Overheads	9
	39

Required:

(i) CALCULATE the quantity (in litres) of raw material inputs during the month.

(ii) CALCULATE the quantity (in litres) of normal loss expected from the process and the quantity (in litres) of abnormal loss / gain experienced in the month.

(iii) CALCULATE the values of raw material, labour and overheads added to the process during the month.

(iv) PREPARE the process account for the month.

(10 Marks)

(b) Cimech Constructions Limited has entered into a big contract at an agreed price of Rs. 1,50,00,000 subject to an escalation clause for material and labour as spent out on the contract and corresponding actual are as follows:

Material:	Standard		Actual	
	Quantity (Tons)	Rate per Ton (Rs.)	Quantity (Tons)	Rate per Ton (Rs.)
A	3,000	1,000	3,400	1,100
B	2,400	800	2,300	700
C	500	4,000	600	3,900
D	100	30,000	90	31,500
Labour:	**Hours**	**Hourly Rate (Rs.)**	**Hours**	**Hourly Rate (Rs.)**
L1	60,000	15	56,000	18
L2	40,000	30	38,000	35

You are required to:

(i) ANALYSE admissible escalation claim and DETERMINE the final contract price payable.

PREPARE the contract account, if the all expenses other than material and labour related to the contract are Rs. 13,45,000.

(10 Marks)

Question 4:

(a) The following standards have been set to manufacture a product:

Direct Materials:	(Rs.)
2 units of X at Rs. 40 per unit	80.00
3 units of Y at Rs. 30 per unit	90.00
15 units of Z at Rs. 10 per unit	150.00
	320.00
Direct labour 3 hours @ Rs. 55 per hour	165.00
Total standard prime cost	485.00

The company manufactured and sold 6,000 units of the product during the year 20X8.

Direct material costs were as follows:

12,500 units of X at Rs. 44 per unit.

18,000 units of Y at Rs. 28 per unit.
88,500 units of Z at Rs. 12 per unit.
The company worked 17,500 direct labour hours during the year 20X8. For 2,500 of these hours the company paid at Rs. 58 per hour while for the remaining hours the wages were paid at the standard rate.

Required:
COMPUTE the following variances:
Material Price, Material Usage, Material Mix, Material Yield, Labour Rate and Labour Efficiency.

(10 Marks)

(b) Nakata Ltd a Vehicle manufacturer has prepared sales budget for the next few months, and the following draft figures are available:

Month	No. of vehicles
October	40,000
November	35,000
December	45,000
January	60,000
February	65,000

To manufacture a vehicle a standard cost of Rs. 5,71,400 is incurred and sold through dealers at a uniform selling price of Rs. 8,57,100 to customers. Dealers are paid 15% commission on selling price on sale of a vehicle.
Apart from other materials four units of Part - X are required to manufacture a vehicle. It is a policy of the company to hold stocks of Part-X at the end of each month to cover 40% of next month's production. 48,000 units of Part-X are in stock as on 1st October.
There are 9,500 nos. of completed vehicles are in stock as on 1st October and it is policy to have stocks at the end of each month to cover 20% of the next month's sales.
You are required to

(i) PREPARE Production budget (in nos.) for the month of October, November, December and January.

(ii) PREPARE a Purchase budget for Part-X (in units) for the months of October, November and December.

CALCULATE the budgeted gross profit for the quarter October to December.

(10 Marks)

Question 5:

(a) The following is the summarised Trading and Profit and Loss Account of XYZ Ltd. for the year ended 31st March 2019:

Particulars	Amount (Rs.)	Particulars		Amount (Rs.)
Direct Material	14,16,000	Sales (30,000 units)		30,00,000
Direct wages	7,42,000	Finished stock (2,000 units)		1,67,500
Works overheads	4,26,000	Work-in-progress:		
Administration overheads	1,50,000	- Materials	34,000	
Selling and distribution overheads	1,65,000	- Wages	16,000	
Net profit for the year	3,22,500	- Works overhead	4,000	54,000
	32,21,500			32,21,500

The company's cost records show that in course of manufacturing a standard unit (i) works overheads have been charged @ 20% on prime cost, (ii) administration overheads are related with production activities and are recovered at Rs. 5 per finished unit, and (iii) selling and distribution overheads are recovered at Rs. 6 per unit sold.
You are required to PREPARE:

(i) Costing Profit and Loss Account indicating the net profits,
(ii) A Statement showing reconciliation between profit as disclosed by the Cost Accounts and Financial Accounts.

(10 Marks)

(b) KD Ltd. is following Activity based costing. Budgeted overheads, cost drivers and volume are as follows:

Cost pool	Budgeted overheads (Rs.)	Cost driver	Budgeted volume
Material procurement	18,42,000	No. or orders	1,200
Material handling	8,50,000	No. of movement	1,240
Maintenance	24,56,000	Maintenance hours	17,550
Set-up	9,12,000	No. of set-ups	1,450
Quality control	4,42,000	No. of inspection	1,820

The company has produced a batch of 7,600 units, its material cost was Rs. 24,62,000 and wages Rs. 4,68,500. Usage activities of the said batch are as follows:

Material orders	56
Material movements	84
Maintenance hours	1,420 hours
Set-ups	60
No. of inspections	18

Required:
(i) CALCULATE cost driver rates.
(ii) CALCULATE the total and unit cost for the batch.

(10 Marks)

Question 6:

(a) DISCUSS the steps to be followed to exercise control over cost.

(5 Marks)

(b) DISTINGUISH between Bill of Materials and Material Requisition Note.

(5 Marks)

(c) LIST five financial expenses that causes differences in Financial and Cost Accounts.

(5 Marks)

(d) EXPLAIN standing charges and running charges in the case of transport organisations. LIST three examples of both.

(5 Marks)

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