(GI-2, GI-6, GI-7, VI-1, VDI-1, DRIVE & FMT)

DATE: 01.08.2023 MAXIMUM MARKS: 100 TIMING: 3¼ Hours

COST AND MANAGEMENT ACCOUNTING

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 Ltd. is a pharmaceutical company which produces vaccines for diseases like Monkey Pox, Covid-19 and Chickenpox. A distributor had given an order for 1,600 Monkey Pox Vaccines. The company can produce 80 vaccines at a time. To process a batch of 80 Monkey Pox vaccines, the following costs would be incurred:

	Rs.
Direct Materials	4,250
Direct wages	500
Lab set-up cost	1,400

The Production Overheads are absorbed at a rate of 20% of direct wages and 20% of total production cost is charged in each batch for Selling, distribution and administration Overheads. The company is willing to earn profit of 25% on sales value.

You are required to determine:

(i) Total Sales value for 1,600 Monkey Pox Vaccines

(ii) Selling price per unit of the Vaccine.

(5 Marks)

(b) ABC Bank is having a branch which is engaged in processing of 'Vehicle Loan' and 'Education Loan' applications in addition to other services to customers. 30% of the overhead costs for the branch are estimated to be applicable to the processing of 'Vehicle Loan' applications and 'Education Loan' applications each.

Branch is having four employees at a monthly salary of Rs. 50,000 each, exclusively for processing of Vehicle Loan applications and two employees at a monthly salary of Rs. 70,000 each, exclusively for processing of Education Loan applications.

In addition to above, following expense are incurred by the Branch:

- Branch Manager who supervises all the activities of branch, is paid at Rs. 90,000 per month.
- Legal charges, Printing & stationery and Advertising Expenses are incurred at Rs. 30,000, Rs. 12,000 and Rs. 18,000 respectively for a month.
- Other expenses are Rs. 10,000 per month. You are required to:

(i) Compute the cost of processing a Vehicle Loan application on the assumption that 496 Vehicle Loan applications are processed each month.

(ii) Find out the number of Education Loan Applications processed, if the total processing cost per Education Loan Application is same as in the Vehicle Loan Application as computed in (i) above.

(5 Marks)

(c) MM Ltd. uses 7500 valves per month which is purchased at a price of Rs. 1.50 per unit. The carrying cost is estimated to be 20% of average inventory investment on an annual basis. The cost to place an order and getting the delivery is Rs. 15. It takes a period of 1.5 months to receive a delivery from the date of placing an order and a safety stock of 3200 valves is desired.

You are required to determine:

(i) The Economic Order Quantity (EOQ) and the frequency of orders.
(ii) The re-order point.
(iii) The Economic Order Quantity (EOQ) if the valve cost Rs. 4.50 each instead of 1.50 each.

(Assume a year consists of 360 days)

(5 Marks)

(d) ABC Ltd sells its Product 'Y' at a price of Rs. 300 per unit and its variable cost is Rs. 180 per unit. The fixed costs are Rs. 16,80,000 per year uniformly incurred throughout the year. The Profit for the year is Rs. 7,20,000.

You are required to calculate:

(i) BEP in value (Rs.) and units.
(ii) Margin of Safety
(iii) Profits made when sales are 24,000 units.
(iv) Sales in value (Rs.) to be made to earn a net profit of Rs. 10,00,000 for the year.

(5 Marks)

Question 2:

(a) G Ltd. manufactures leather bags for office and school purposes.

The following information is related with the production of leather bags for the month of September, 2021.

(1) Leather sheets and cotton clothes are the main inputs and the estimated requirement per bag is two metres of leather sheets and one metre of cott on cloth. 2,000 metre of leather sheets and 1,000 metre of cotton cloths are purchased at Rs. 3,20,000 and Rs. 15,000 respectively. Freight paid on purchases is Rs. 8,500.
(2) Stitching and finishing need 2,000 man hours at Rs. 80 per hour.
(3) Other direct costs of Rs. 10 per labour hour is incurred.
(4) G Ltd. have 4 machines at a total cost of Rs. 22,00,000. Machines have a life of 10 years with a scrap value of 10% of the original cost. Depreciation is charged on a straight-line method.
(5) The monthly cost of administration and sales office staffs are Rs. 45,000 and Rs. 72,000 respectively. G Ltd. pays Rs. 1,20,000 per month as rent for a 2,400 sq. feet factory premises. The administrative and sales office occupies 240 sq. feet and 200 sq. feet respectively of factory space.
(6) Freight paid on delivery of finished bags is Rs. 18,000.
(7) During the month, 35 kgs of scrap (cuttings of leather and cotton) are sold at Rs. 150 per kg.
(8) There are no opening and closing stocks of input materials. There is a finished stock of 100 bags in stock at the end of the month.

You are required to prepare a cost sheet in respect of above for the month of September 2021 showing:

(i) Cost of Raw Material Consumed
(ii) Prime Cost
(iii) Works/Factory Cost
(iv) Cost of Production
(v) Cost of Goods Sold
(vi) Cost of Sales

(10 Marks)

(b) AZ company has prepared its budget for the production of 2,00,000 units. The variable cost per unit is Rs. 16 and fixed cost is Rs. 4 per unit. The company fixes its selling price to fetch a profit of 20% on total cost.

You are required to calculate:

(i) Present break-even sales (in Rs. and in quantity).

(ii) Present profit-volume ratio.

(iii) Revised break-even sales in Rs. and the revised profit-volume ratio, if it reduces its selling price by 10%.

(iv) What would be revised sales- in quantity and the amount, if a company desires a profit increase of 20% more than the budgeted profit and selling price is reduced by 10% as above in point (iii).

(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 a FIFO process costing system 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 the paper files 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:

(a) Calculate the quantity (in litres) of raw material inputs during the month.

(b) 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.

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

(d) Prepare the process account for the month.

(10 Marks)

(b) Following data is extracted from the books of XYZ Ltd. for the month of January, 2020:

(i) **Estimation-**

Particulars	**Quantity (kg.)**	**Price (Rs.)**	**Amount (Rs.)**
Material-A	800	?	--
Material-B	600	30.00	18,000
			--

Normal loss was expected to be 10% of total input materials.

(ii) **Actuals-**

1480 kg of output produced.

Particulars	Quantity (kg.)	Price (Rs.)	Amount (Rs.)
Material-A	900	?	--
Material-B	?	32.50	--
			59,825

(iii) **Other Information-**

Material Cost Variance = Rs. 3,625 (F)

Material Price Variance = Rs. 175 (F)

You are required to CALCULATE:

(i) Standard Price of Material-A;

(ii) Actual Quantity of Material-B;

(iii) Actual Price of Material-A;

(iv) Revised standard quantity of Material-A and Material-B; and

(v) Material Mix Variance.

(10 Marks)

Question 4:

(a) Journalise the following transactions assuming cost and financial accounts are integrated:

		(Rs.)
(i)	Materials issued:	
	Direct	3,25,000
	Indirect	1,15,000
(ii)	Allocation of wages (25% indirect)	6,50,000
(iii)	Under/Over absorbed overheads:	
	Factory (Over)	2,50,000
	Administration (Under)	1,75,000
(iv)	Payment to Sundry Creditors	1,50,000
(v)	Collection from Sundry Debtors	2,00,000

(10 Marks)

(b) A company manufactures one main product (M_1) and two by-products B_1 and B_2. For the month of January 2013, following details are available:

Total Cost upto separation Point Rs. 2,12,400

	M1	**B1**	**B2**
Cost after separation	-	Rs. 35,000	Rs. 24,000
No. of units produced	4,000	1,800	3,000
Selling price per unit	Rs. 100	Rs. 40	Rs. 30
Estimated net profit as percentage to sales value	-	20%	30%
Estimated selling expenses as percentage to sales value	20%	15%	15%

There are no beginning or closing inventories. Prepare statement showing:

(i) Allocation of joint cost; and

(ii) Product-wise and overall profitability of the company for January 2013.

(10 Marks)

Question 5:

(a) Sanziet Lifecare Ltd. operates in life insurance business. Last year it launched a new term insurance policy for practicing professionals 'Professionals Protection Plus'. The company has incurred the following expenditures during the last year for the policy:

	Rs.
Policy development cost	11,25,000
Cost of marketing of the policy	45,20,000
Sales support expenses	11,45,000
Policy issuance cost	10,05,900
Policy servicing cost	35,20,700
Claims management cost	1,25,600
IT cost	74,32,000
Postage and logistics	10,25,000
Facilities cost	15,24,000
Employees cost	5,60,000
Office administration cost	16,20,400

Number of policy sold- 528
Total insured value of policies- Rs. 1,320 crore
Required:
(i) CALCULATE total cost for Professionals Protection Plus' policy segregating the costs into four main activities namely (a) Marketing and Sales support, (b) Operations, (c) IT and (d) Support functions.
(ii) CALCULATE cost per policy.
(iii) CALCULATE cost per rupee of insured value.

(10 Marks)

(b) Mix Soap Pvt. Ltd., manufactures three brands of soap – Luxury, Herbal and Beauty. The following information has been obtained for the period from June 1 to June 30, 2021 relating to three brands:

	Luxury	Herbal	Beauty
Actual Production (units)	6,750	14,000	77,500
Wages paid (Rs.)	7,500	18,750	1,15,000
Raw materials consumed (Rs.)	20,000	47,000	2,40,000
Selling price per unit (Rs.)	25	15	8

Other data are:

Factory overheads	Rs. 80,000
General & administration overheads (equal for all)	Rs. 48,000
Selling overheads	20% of Works cost

If the company limits the manufacture to just one brand of soap adopting a single brand production, then monthly production will be:

	Units
Luxury	5,000
Herbal	15,000
Beauty	30,000

Further, factory overheads are to be allocated to each brand on the basis of the units which could have been produced when single brand production was in operation.
You are required to:
(i) FIND out the Factory overhead rate for all the brands.
(ii) PREPARE a cost statement for the month of June showing the various elements of cost and also the profit earned.

(10 Marks)

Question 6:

(a) Which system of inventory management is known as 'Demand pull' or 'Pull through' system of production? Explain. Also, specify the two principles on which this system is based.

(5 Marks)

(b) Indicate, for following items, whether to be shown in the Cost Accounts or Financial Accounts:

(i) Preliminary expenses written off during the year
(ii) Interest received on bank deposits
(iii) Dividend, interest received on investments
(iv) Salary for the proprietor at notional figure though not incurred
(v) Charges in lieu of rent where premises are owned
(vi) Rent receivables
(vii) Loss on sale of Fixed Assets
(viii) Interest on capital at notional figure though not incurred
(ix) Goodwill written off
(x) Notional Depreciation on the assets fully depreciated for which book value is Nil.

(5 Marks)

(c) PP Limited is in the process of implementation of Activity Based Costing System in the organisation. For this purpose, it has identified the following Business Functions in its organisation:

(i) Research and Development
(ii) Design of Products, Services and Procedures
(iii) Customer Service
(iv) Marketing
(v) Distribution

You are required to specify two cost drivers for each Business Function Identified above.

(5 Marks)

(d) Define Budget Manual. What are the salient features of Budget Manual?

(5 Marks)

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