(GI-10, GI-11, VI-2(A) & AI-2(A), DI-1+2 & Drive)

DATE: 18.03.2023 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.

1. The question paper comprises two parts, Part I and Part II.

2. Part I comprises Multiple Choice Questions (MCQs).

3. Part II comprises questions which require descriptive type answers.

In case, any candidate answers extra question(s)/sub-question(s) over and above the required number, then all answers shall be valued and best four will be considered.

Wherever necessary, suitable assumptions may be made and disclosed by way of note.

SECTION – A

PART – I – MULTIPLE CHOICE QUESTIONS

TOTAL MARKS: 30 MARKS

Write the most appropriate answer to each of the following multiple choice questions by choosing one of the four options given, All questions are compulsory.

1. Ticket Counter in a Railway Station is an example of
   (a) Cost Centre
   (b) Revenue Centre
   (c) Profit Centre
   (d) Investment Centre

2. Which of the following is evaluated in a Supplier Decision?
   (a) Financial Background
   (b) Quality of Materials
   (c) Time for Delivery
   (d) All of the above

3. Time Booking refers to keeping a record of –
   (a) Time spent by workers on their jobs
   (b) Time spent by workers in factory
   (c) Time spent by workers without work
   (d) Time spent by workers other than working hours

4. Charging to a Cost Center, those overheads that result solely for the existence of that Cost Center is known as –
   (a) Allocation
   (b) Apportionment
   (c) Absorption
   (d) Allotment

5. Identify the "Batch Level Activity" Cost out of the following.
   (a) Ground Maintenance
   (b) Use of Indirect Materials and Consumables
   (c) Inspection of Products
   (d) Product Designing

6. Which of the following items is not excluded while preparing a Cost Sheet?
   (a) Goodwill written off
   (b) Provision for Taxation
   (c) Property Tax on Factory Building
   (d) Transfer to Reserves

7. Under Non-Integrated Accounting System, the account made to complete double entry is –
   (a) Stores Ledger Control Account
   (b) Work in Progress Control Account
   (c) Finished Goods Control Account
   (d) General Ledger Adjustment Account

8. In Product Costing, Conversion Cost means –
   (a) Cost of Direct Materials, Direct Labor, Direct Expenses
   (b) Direct Labor, Direct Expenses, Indirect Material, Indirect Labor, Indirect Expenses
   (c) Prime Cost plus Factory Overheads
   (d) All costs up to the product reaching the consumer, less Direct Material Costs

9. Batch Costing is similar to that under job costing except with the difference that a –
   (a) Job becomes a Cost Unit.
   (b) Batch becomes the Cost Unit instead of a Job
   (c) Process becomes a Cost Unit
   (d) Batch becomes the Cost Centre

10. When Average Method is used in Process Costing, the Opening Inventory Costs are:
   (a) Subtracted from the Current Costs
   (b) Added to the Current Costs
   (c) Kept separate from the Costs of the Current Period
   (d) Averaged with other costs to arrive at Total Cost

11. In the Net Realizable Value Method, for apportioning Joint Costs over the joint products, the basis of apportionment would be -
   (a) Selling Price per unit of each of the Joint Products
   (b) Selling Price multiplied by units sold of each of the major Joint Products
   (c) Sales Value of each Joint Product less Further Processing Costs of individual products
   (d) Net Contribution obtained from each of the Joint Products

12. In Passenger Transport Sector, Cost of Diesel and Lubricants is an example of:
   (a) Operating Cost
   (b) Fixed Charges
   (c) Semi-Variable Cost
   (d) Running Charges

13. Overhead Cost Variance is:
   (a) the difference between overheads recovered on Actual Output, and the Actual Overhead incurred
   (b) the difference between Budgeted Overhead Cost and Actual Overhead Cost
   (c) obtained by multiplying Standard Overhead Absorption Rate with the difference between Standard Hours for actual output and actual hours worked
   (d) a notional concept and cannot be computed at all

14. PV Ratio will increase if there is –
    (a) a decrease in Fixed Cost
    (b) an increase in Fixed Cost
    (c) a decrease in Selling Price per unit
    (d) a decrease in Variable Cost per unit

15. "A Favorable Budget Variance is always an indication of efficient performance". Do you agree, give reason?
    (a) A favorable variance indicates, saving on the part of the organization hence it indicates efficient performance of the organization.
    (b) Under all situations, a Favorable Variance of an organization speaks about its efficient performance.
    (c) A Favorable Variance does not necessarily indicate efficient performance, because such a Variance might have been arrived at by not carrying out the expenses mentioned in the budget.
    (d) None of the above.

16. Activity Ratio depicts whether –
    (a) the actual capacity utilized exceeds or falls short of the budgeted capacity
    (b) the actual hours used for actual production were more or less than the standard hours
    (c) the actual activity was more or less than the budgeted capacity
    (d) the actual days worked was more or less than the planned days

17. Processes Costing method is suitable for –
    (a) Transport Sector
    (b) Chemical Industries
    (c) Dam Construction
    (d) Furniture-making

18. Which of these is NOT used in the context of Material Cost Control?
    (a) Goods Received Note
    (b) Bill of Materials
    (c) Stores Requisition
    (d) Profit Reconciliation Statement

19. What is the treatment of Incentive Bonus to Workers in Cost Accounting?
    (a) Appropriation of Profit
    (b) Abnormal Cost
    (c) Deferred Cost
    (d) Direct Wages

20. Normal Capacity of a Plant refers to the difference between –
    (a) Maximum Capacity and Practical Capacity
    (b) Practical Capacity and Normal Capacity
    (c) Practical capacity and estimated idle capacity as revealed by long term sales trend
    (d) Maximum Capacity and Actual Capacity.

21. A Cost Driver –
    (a) is a force behind the overhead cost
    (b) is an allocation base
    (c) is a transaction that is a significant determinant of cost
    (d) is all of the above.

22. A Company pays Royalty to State Government on the basis of production, it is treated as:
    (a) Direct Material Cost
    (b) Quality Control Cost
    (c) Direct Expenses
    (d) Administration Overhead

23. What is the Journal Entry under Non Integrated System, for absorption of Factory Overhead?
    (a) Dr. Factory OH Control, Cr. WIP Control
    (b) Dr. WIP Control, Cr. Factory OH Control
    (c) Dr. WIP Control, Cr. General Ledger Adjustment
    (d) Dr. Factory OH Control, Cr. General Ledger Adjustment

24. Which of the following items is not included in preparation of Cost Sheet in Single Costing?
    (a) Carriage Inward
    (b) Purchase Returns
    (c) Sales Commission
    (d) Interest Paid on Debt

25. Which of the following statements is true:
    (a) Job Cost Sheet may be prepared for facilitating routing and scheduling of the job
    (b) Job Costing can be suitably used for concerns producing uniformly any specific product
    (c) Job Costing cannot be used in Companies using standard costing
    (d) Neither (a) nor (b) nor (c).

26. "K Labs" develops a product using a four-step process that moves progressively through four departments. The Company specializes in overnight service and has the largest drug store chain as its Primary Customer. Currently, Direct Labor, Direct Materials, and Overhead are accumulated by departments. The cost accumulation system that best describes the system in the Company is –
    (a) Operation Costing
    (b) Activity-Based Costing
    (c) Job-Order Costing
    (d) Process Costing

27. For allocating Joint Costs to Joint Products, the Sales Price at point of sale, reduced by cost to complete after split-off, is assumed to be equal to the:
    (a) Joint Costs
    (b) Sales Price less a Normal Profit Margin at point of sale
    (c) Net Sales Value at split off
    (d) Total Costs

28. BOT approach means:
    (a) Build, Operate and Transfer
    (b) Buy, Operate and Transfer
    (c) Build, Operate and Trash
    (d) Build, Own and Trash.

29. Idle Time Variance is obtained by multiplying the difference between -
    (a) Standard and Actual Hours by the Actual Rate of Labour per hour
    (b) Actual Productive Labor Hours and Actual Labour Hours Paid, by the Standard Rate of Labour per hour
    (c) Standard Hours and Actual Productive Labour Hours, by the Standard Rate of Labour per hour
    (d) Standard Hours and Actual Labour Hours Paid, by the Standard Rate of Labour per hour

30. Marginal Costing Technique follows the following basis of classification –
    (a) Element wise
    (b) Function-wise
    (c) Behavior-wise
    (d) Identifiability-wise

(30 MCQ x 1 M Each = 30 Marks)

SECTION – B

PART – II - DESCRIPTIVE QUESTIONS

QUESTIONS NO. 1 IS COMPULSORY
ATTEMPT ANY FOUR QUESTIONS THE REMAINING FIVE QUESTIONS

TOTAL MARKS: 70 MARKS

Question 1:

(a) Manoj 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)

(3 Marks)

(b) Anish 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.

(4 Marks)

(c) Chirag 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.

(3 Marks)

(d) Syndicate 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.

(4 Marks)

Question 2:

(a) Sanjeev 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.
Sanjeev 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.

(7 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.

(7 Marks)

Question 3:

(a) Ranikhet 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.

(7 Marks)

(b) Vine 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.

(7 Marks)

Question 4:

(a) Ganesh 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) Ganesh 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. Ganesh 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

(7 Marks)

(b) Rahul 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).

(7 Marks)

Question 5:

(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

(7 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.

(7 Marks)

Question 6:

(a) Prayag 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)

(b) 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.

(4 Marks)

(c) 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)

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