## (GI-10, GI-11, VI-2(A) \& AI-2(A), DI-1+2 \& Drive) <br> DATE: 12.02.2024

## 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. The advantage of using IT in Cost Accounting does not include:
(a) Single Point Data Entry
(b) Stock needs to be reconciled with Goods Received Note
(c) Reduction in multiplicity of documents
(d) Integration of various functions
2. Costs which are ascertained after they have been incurred are known as -
(a) Sunk Costs
(b) Imputed Costs
(c) Historical Costs
(d) Opportunity Costs
3. Which of the following is NOT recorded on a Bin Card?
(a) Material Received from Supplier
(b) Material Issued to Production Depts
(c) Inter Department Transfers
(d) Loss of Materials
4. If RM Requirement is 18,250 units p.a., Ordering Cost is Rs. 50 and Carrying Cost

Rs. 0.1 per day, EOQ $=$
(a) 4,272 units
(b) 224 units
(c) 8,162 units
(d) None of the above
5. Standard Time of a job is 60 hours and guaranteed time rate is Rs. 30 per hour. What is the amount of wages under Rowan plan if job is completed in 48 hours?
(a) Rs. 1,620
(b) Rs. 1,728
(c) Rs. 1,800
(d) Rs. 1,440
6. If Actual Output in 8 hours is 700 units, Standard Output is 90 units per hour, Efficiency Ratio is
(a) $97.22 \%$
(b) $102.86 \%$
(c) $100 \%$
(d) $77.78 \%$
7. Primary Packing Cost is a part of:
(a) Direct Material Cost
(b) Production Cost
(c) Selling Overheads
(d) Distribution Overheads
8. When Absorbed Overhead is higher than the amount of Overhead incurred, it is called -
(a) Under-absorption of Overhead
(b) Over-absorption of Overhead
(c) Proper absorption of Overhead
(d) Re-absorption of Overhead
9. Which of these is generally a "Unit Level Activity" Cost?
(a) Material Ordering - where an order is placed for every batch of production.
(b) Machine Set-Up Costs - where machines need re-setting for each different batch / lot.
(c) Inspection of Products - where the first item in every batch is inspected.
(d) Use of Indirect Materials and Consumables
10. The key elements of Activity Based Budgeting are -
(a) Type of activity to be performed
(b) Quantity of activity to be performed
(c) Cost of activity to be performed
(d) All of the above.
11. Which of the following does not form part of Prime Cost
(a) Cost of Packing
(b) Cost of Transportation Paid to bring materials to Factory
(c) GST paid on Raw Materials (where Input Credit cannot be claimed)
(d) Overtime Premium paid to Workers.
12. Salary paid to Factory Stores Staff is part of:
(a) Factory Overheads
(b) Production Cost
(c) Direct Employee Cost
(d) Direct Material Cost
13. When you attempt a reconciliation of profits as per Financial Accounts and Cost Accounts, the following is done:
(a) Add the under absorption of OH in Cost Accounts if you start from the Profits as per Financial Accounts.
(b) Add the under absorption of OH in Cost Accounts if you start from the profits as per Cost Accounts.
(c) Add the over absorption of OH in Cost Accounts if you start from the profits as per Financial Accounts.
(d) Add the over absorption of OH in Cost Accounts if you start from the profits as per Cost Accounts.
14. In Profit Reconciliation Statement, Closing Stock Undervalued in Financial Accounts if starting point in financial profit-
(a) Added to Financial Profit
(b) Deducted from Financial Profit
(c) Added to Costing Profit
(d) Omitted from Reconciliation
15. Which of the following is an appropriate example of Direct Expenses?
(a) Rent for Warehouse
(b) Royalty charged on Production
(c) Bonus to Employees
(d) Works Directors' Salaries
16. Which method of absorption of Factory Overheads do you suggest in a concern which produces only one uniform type of product?
(a) Percentage of Direct Wages Basis
(b) Direct Labor Rate
(c) Machine Hour Rate
(d) Rate per unit of output
17. Economic Batch Quantity is that size of the batch of production where -
(a) Average Production Cost is minimum
(b) Set-Up Cost per Production Run is minimum
(c) Carrying Cost per unit per annum is minimum
(d) Sum of annual Set Up Cost and Carrying Costs is minimum
18. Job Costing is used in -
(a) Furniture-making
(b) Repair Shops
(c) Printing Press
(d) All of the above
19. In Process $A, 6,000$ units are introduced during a period. Normal Loss is $5 \%$ of Input. Closing WIP was 800 units, each $60 \%$ complete. 4,900 completed units are transferred to next Process. Equivalent Production for the period is -
(a) 6,000 units
(b) 4,900 units
(c) 5,220 units
(d) 5,380 units
20. When compared with Normal Spoilage, Abnormal Spoilage -
(a) arises more frequently from factors that are inherent in the manufacturing process
(b) is given the same accounting treatment as normal spoilage
(c) is generally thought to be more controllable by Purchase Department than Production Department
(d) is not typically influenced by the "tightness" of production standards.
21. Under Net Realizable Value method of apportioning Joint Costs to joint products, the Selling \& Distribution Cost is:
(a) added to Joint Cost
(b) deducted from Further Processing Cost
(c) deducted from Sales Value
(d) not relevant for computation at all
22. $A B$ Ltd produces 2 products $A$ and $B$ from a joint milling process. A standard production run incurs joint costs of Rs. 1,00,000 and results in 60,000 units of $A$ and 90,000 units of $B . A$ and $B$ have a Sale Price of Rs. 200 and Rs. 450 per unit respectively. Assuming no further processing work is done after the split-off point, the amount of Joint Cost allocated to $B$ on a physical quantity allocation basis would be:
(a) Rs. 60,000
(b) Rs. 40,000
(c) Rs. 1,00,000
(d) Rs. 1,20,000
23. Depreciation is treated as Fixed Cost if it is related to
(a) Activity Level
(b) Related with Machine Hours
(c) Efflux of time
(d) National Value of Asset
24. Cost of Services under Operating Costing is ascertained by preparing -
(a) Cost Sheet
(b) Process Account
(c) Job Cost Sheet
(d) Production Account
25. The standard which is attainable under most favorable conditions is
(a) Theoretical Standard
(b) Expected Standard
(c) Normal Standard
(d) Basic Standard
26. Abnormal Non-Controllable Variances are best disposed-off by transferring to-
(a) Cost of Goods Sold
(b) Cost of Goods Sold and Inventories
(c) Inventories of Work-in-Progress and Finished Goods
(d) Costing Profit and Loss Account
27. Which of the following best describes a Fixed Cost?
(a) It may change in total where such change is unrelated to changes in production.
(b) It may change in total where such change is related to changes in production.
(c) It is constant per unit of change in production.
(d) It may change in total where such change depends on production within the relevant range.
28. If BEP is $40 \%$ of Sales, then the remaining $60 \%$ is called....?
(a) Profit.
(b) Fixed Cost
(c) Variable Cost
(d) Margin of Safety
29. A Flexible Budget requires a careful study of -
(a) Actual and Standard Expenses
(b) Past and Current Expenses
(c) Production Overheads, Selling and Administrative Expenses.
(d) Fixed, Semi-Fixed and Variable Expenses
30. Which of the following is a Long-Term Budget?
(a) Master Budget
(b) Flexible Budget
(c) Cash Budget
(d) Capital Expenditure Budget

## 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) From the details given below, calculate:
(i) Re -ordering level
(ii) Maximum level
(iii) Minimum level
(iv) Danger level.

Re-ordering quantity is to be calculated on the basis of following information:
Cost of placing a purchase order is Rs. 20
Number of units to be purchased during the year is 5,000
Purchase price per unit inclusive of transportation cost is Rs. 50
Annual cost of storage per units is Rs. 5.
Details of lead time : Average- 10 days, Maximum- 15 days, Minimum- 5 days. For emergency purchases- 4 days.
Rate of consumption: Average : 15 units per day, Maximum : 20 units per day.
(6 Marks)
(b) In a factory, overheads of a particular department are recovered on the basis of Rs. 5 per machine hour. The total expenses incurred and the actual machine hours for the department for the month of August were Rs. 80,000 and 10,000 hours respectively. Of the amount of Rs. 80,000, Rs. 15,000 became payable due to an award of the Labour Court and Rs. 5,000 was in respect of expenses of the previous year booked in the current month (August). Actual production was 40,000 units, of which 30,000 units were sold. On analysing the reasons, it was found that $60 \%$ of the under-absorbed overhead was due to defective planning and the rest was attributed to normal cost increase. How would you treat the under-absorbed overhead in the cost accounts?
(4 Marks)
(c) Atharva Pharmacare Limited produced a uniform type of product and has a manufacturing capacity of 3,000 units per week of 48 hours. From the records of the company, the following data are available relating to output and cost of 3 consecutive weeks

| Week <br> Number | Units <br> Manufactured | Direct Material <br> (Rs.) | Direct <br> Wages (Rs.) | Factory <br> Overheads <br> (Rs.) |
| :---: | ---: | ---: | ---: | ---: |
| 1 | 1,200 | 9,000 | 3,600 | 31,000 |
| 2 | 1,600 | 12,000 | 4,800 | 33,000 |
| 3 | 1,800 | 13,500 | 5,400 | 34,000 |

Assuming that the company charges a profit of $20 \%$ on selling price, FIND OUT the selling price per unit when the weekly output is 2,000 units

Question 2:
(a) Difference between Cost Control and Cost Reduction?
(b) The standard labour employment and the actual labour engaged in a week for a job are as under:

|  | Skilled <br> workers | Semi-skilled <br> workers | Unskilled <br> workers |
| :--- | :---: | :---: | :---: |
| Standard no. of workers in the gang | 32 | 12 | 6 |
| Actual no. of workers employed | 28 | 18 | 4 |
| Standard wage rate per hour | 3 | 2 | 1 |
| Actual wage rate per hour | 4 | 3 | 2 |

During the 40 hours working week, the gang produced 1,800 standard labour hours of work. CALCULATE:
(a) Labour Cost Variance
(b) Labour Rate Variance
(c) Labour Efficiency Variance
(d) Labour Mix Variance
(e) Labour Yield Variance
(4 Marks)
(c) A company has a P/V ratio of $40 \%$. COMPUTE by what percentage must sales be increased to offset: $20 \%$ reduction in selling price?
(4 Marks)

## Question 3:

(a) Prisha Limited manufactures three different products and the following information has been collected from the books of accounts:

|  | Products |  |  |
| :---: | :---: | :---: | :---: |
|  | A | B | C |
| Sales Mix | 40\% | 35\% | 25\% |
| Selling Price | Rs. 300 | Rs. 400 | Rs. 200 |
| Variable Cost | Rs. 150 | Rs. 200 | Rs. 120 |
| Total Fixed Costs |  |  | Rs. 18,00,000 |
| Total Sales |  |  | Rs. 60,00,000 |

The company has currently under discussion, a proposal to discontinue the manufacture of Product $C$ and replace it with Product $E$, when the following results are anticipated:

|  | Products |  |  |
| :---: | :---: | :---: | :---: |
|  | A | B | E |
| Sales Mix | 45\% | 30\% | 25\% |
| Selling Price | Rs. 300 | Rs. 400 | Rs. 300 |
| Variable Cost | Rs. 150 | Rs. 200 | Rs. 150 |
| Total Fixed Costs |  |  | Rs. 18,00,000 |
| Total Sales |  |  | Rs. 64,00,000 |

Required:
(i) CALCULATE the total contribution to sales ratio and present break-even sales at existing sales mix.
(ii) CALCULATE the total contribution to sales ratio and present break-even sales at proposed sales mix.
(iii) STATE whether the proposed sales mix is accepted or not?
(6 Marks)
(b) It is seen from the job card for repair of the customer's equipment that a total of 154 labour hours have been put in as detailed below:

|  | Worker 'A' paid at Rs. <br> $\mathbf{2 0 0}$ per day of 8 <br> hours | Worker 'B' paid at <br> Rs. $\mathbf{1 0 0}$ per day of <br> $\mathbf{8}$ hours | Worker 'C' paid at <br> Rs. $\mathbf{3 0 0}$ per day of <br> $\mathbf{8}$ hours |
| :--- | :---: | :---: | :---: |
| Monday (hours) | 10.5 | 8.0 | 10.5 |
| Tuesday (hours) | 8.0 | 8.0 | 8.0 |
| Wednesday <br> (hours) | 10.5 | 8.0 | 10.5 |
| Thursday (hours) | 9.5 | 8.0 | 9.5 |
| Friday (hours) | 10.5 | 8.0 | 10.5 |
| Saturday (hours) | - | 8.0 | 8.0 |
| Total (hours) | 49.0 | 48.0 | 57.0 |

In terms of an award in employee conciliation, the workers are to be paid dearness allowance on the basis of cost of living index figures relating to each month which works out @ Rs. 968 for the relevant month. The dearness allowance is payable to all workers irrespective of wages rate if they are present or are on leave with wages on all working days.
Sunday is a weekly holiday and each worker has to work for 8 hours on all week days and 4 hours on Saturdays; the workers are however paid full wages for Saturday ( 8 hours for 4 hours worked).
Workers are paid overtime according to the Factories Act, 1948. Excluding holidays, the total number of hours works out to 176 in the relevant month. The company's contribution to Provident Fund and Employees State Insurance Premium are absorbed into overheads.
Work out the wages payable to each worker.
(8 Marks)

## Question 4:

(a) The accountant of manufacturing company provides you the following details for year 2021-22:

|  | (Rs. ) |  | (Rs. ) |
| :--- | :---: | :--- | ---: |
| Direct materials | $1,75,000$ | Other variable costs | 80,000 |
| Direct Wages | $1,00,000$ | Other fixed costs | 80,000 |
| Fixed factory overheads | $1,00,000$ | Profit | $1,15,000$ |
| Variable factory overheads | $1,00,000$ | Sales | $7,50,000$ |

During the year, the company manufactured two products $A$ and $B$ and the output and costs were:

|  | A | B |
| :--- | :---: | :---: |
| Output (units) | $2,00,000$ | $1,00,000$ |
| Selling price per unit | Rs. 2.00 | Rs. 3.50 |
| Direct materials per unit | Rs. 0.50 | Rs. 0.75 |
| Direct wages per unit | Rs. 0.25 | Rs. 0.50 |

Variable factory overhead is absorbed as a percentage of direct wages. Other variable costs have been computed as: Product A Rs. 0.25 per unit; and B Rs. 0.30 per unit.

During 2022-23, it is expected that the demand for product A will fall by $25 \%$ and for B by $50 \%$. It is decided to manufacture a further product C , the cost for which is estimated as follows:

|  | Product C |
| :--- | ---: |
| Output (units) | $2,00,000$ |
| Selling price per unit | Rs. 1.75 |
| Direct materials per unit | Rs. 0.40 |
| Direct wages per unit | Rs. 0.25 |

It is anticipated that the other variable costs per unit will be the same as for product A.
PREPARE a budget to present to the management, showing the current position and the position for 2022-23. Comment on the comparative results.
(6 Marks)
(b) 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 current year 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 current year:

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

Required:
(i) 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.
(ii) 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.
(8 Marks)

## Question 5:

(a) One kilogram of product K requires two chemicals A and B . The following were the details of product $K$ for the month of June 2023:
(a) Standard mix for chemical A is $50 \%$ and chemical $B$ is $50 \%$.
(b) Standard price kilogram of chemical A is Rs. 12 and chemical B is Rs. 15.
(c) Actual input of chemical $B$ is 70 kilograms.
(d) Actual price per kilogram of chemical A is Rs. 15
(c) Standard normal loss is $10 \%$ of total input
(d) Total Material cost variance is Rs. 650 adverse.
(e) Total Material yield variance is Rs. 135 adverse.

You are required to CALCULATE:
(i) Total Material mix variance
(ii) Total Material usage variance
(iii) Total Material price variance
(iv) Actual loss of actual input
(v) Actual input of chemical A
(vi) Actual price per kg. of chemical B
(6 Marks)
(b) The following figures have been extracted from the cost records of a manufacturing unit:

|  | (Rs.) |
| :---: | ---: |
| Stores: Opening balance | 32,000 |
| Purchases of material | $1,58,000$ |
| Transfer from work-in-progress | 80,000 |
| Issues to work-in-progress | $1,60,000$ |
| Issues to repair and maintenance | 20,000 |
| Deficiencies found in stock taking | 6,000 |
| Work-in-progress : Opening balance | 60,000 |
| Direct wages applied | 65,000 |
| Overheads applied | $2,40,000$ |
| Closing balance of W.I.P. | 45,000 |

Finished products: Entire output is sold at a profit of $10 \%$ on actual cost from work-in-progress. Wages incurred Rs. 70,000, overhead incurred Rs. 2,50,000.
Items not included in cost records: Income from investment Rs. 10,000, Loss on sale of capital assets Rs. 20,000.
Draw up Store Control account, Work-in-progress Control account, Costing Profit and Loss account, Profit and Loss account and Reconciliation statement.
(4 Marks)
(c) In a factory following the Job Costing Method, an abstract from the work-inprogress as on $30^{\text {th }}$ September was prepared as under.

| Job No. | Materials <br> (Rs.) | Direct hrs. | Labour <br> (Rs.) | Factory Overheads <br> applied (Rs.) |
| :---: | ---: | :---: | ---: | ---: |
| 115 | 1325 | 400 hrs. | 800 | 640 |
| 118 | 810 | $250 \mathrm{hrs}$. | 500 | 400 |
| 120 | 765 | 300 hrs. | 475 | 380 |
|  | 2,900 |  | 1,775 | 1,420 |

Materials used in October were as follows:

| Materials Requisition No. | Job No. | Cost (Rs.) |
| :---: | :---: | ---: |
| 54 | 118 | 300 |
| 55 | 118 | 425 |
| 56 | 118 | 515 |
| 57 | 120 | 665 |
| 58 | 121 | 910 |
| 59 | 124 | 720 |
|  |  | 3,535 |

A summary for labour hours deployed during October is as under:

| Job No. | Number of Hours |  |
| :--- | :---: | :---: |
|  | Shop A | Shop B |
| 115 | 25 | 25 |
| 118 | 90 | 30 |
| 120 | 75 | 10 |
| 121 | 65 | -- |
| 124 | 25 | 10 |
|  | 275 | 75 |
| Indirect Labour: Waiting of material | 20 | 10 |
| Machine breakdown | 10 | 5 |
| Idle time | 5 | 6 |
| Overtime premium | 6 | 5 |
|  | 316 | 101 |

A shop credit slip was issued in October, that material issued under Requisition No. 54 was returned back to stores as being not suitable. A material transfer note issued in October indicated that material issued under Requisition No. 55 for Job 118 was directed to Job 124.
The hourly rate in shop A per labour hour is Rs. 3 per hour while at shop B, it is Rs. 2 per hour. The factory overhead is applied at the same rate as in September. Job 115, 118 and 120 were completed in October.
You are asked to COMPUTE the factory cost of the completed jobs. It is the practice of the management to put a $10 \%$ on the factory cost to cover administration and selling overheads and invoice the job to the customer on a total cost plus $20 \%$ basis. DETERMINE the invoice price of these three jobs?
(4 Marks)

## Question 6:

(a) DESCRIBE the factors which are to be considered before installing a system of cost accounting.
(4 Marks)
(b) What is the difference between job costing and process costing.
(c) What are the different ratios used in budgetary control and how there calculated.
(5 Marks)

