## PAPER-8

## COST ACCOUNTING

The figures in the margin on the right side indicate full marks. Where considered necessary, suitable assumptions may be made and clearly indicated in the answer.
Answer Question No. 1 and any five from Question No. 2, 3, 4, 5, 6, 7 and 8.

## SECTION - A

## (Compulsory)

1. (a) Choose the correct answer from the given alternatives (you may write only the Roman numeral and the alphabet chosen for your answer):
(i) Which of the following statements is/are correct?
2. A materials requisition note is used to record the issue of direct material to a specific job
3. A typical job cost will contain actual costs for material, labour and production overheads, and non- production overheads are often added as a percentage of total production cost
4. The job costing method can be applied in costing batches
A. (1) only
B. (1) and (2) only
C. (1) and (3) only
D. (2) and (3) only
(ii) Cost of idle time arising due to non-availability of raw material is
A. Recovered by inflating the raw material rate.
B. Recovered by inflating the wage rate.
C. Charged to factory overheads.
D. Charged to costing profit and loss account.
(iii) Selling and distribution overheads are absorbed on the basis of
A. Rate per unit.
B. Percentage on works cost.
C. Percentage on selling price of each unit.
D. Any of the above

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(iv) What entry will be passed under integrated system for purchase of stores on credit?
A. Dr. Stores

Cr. Creditors
B. Dr. Purchases

Cr. Creditors
C. Dr. Stores Ledger Control A/c

Cr. Creditors
D. Dr. Stores Ledger Control A/c

Cr. General Ledger Adjustment A/c
(v) $\qquad$ deals with the principles and methods of determining the production or operation overheads.
A. CAS-3
B. CAS-5
C. CAS-9
D. CAS-16
(vi) Marginal costing technique follows the following basis of classification:
A. Element-wise
B. Function-wise
C. Behaviour-wise
D. Identifiability-wise
(vii) Which of the following is not a potential benefit of using a budget?
A. More motivated managers
B. Enhanced co-ordination of firm activities
C. Improved inter-departmental communication
D. More accurate external financial statements
(viii) Cost Accounting Standard 1 (CAS1) deals with $\qquad$
A. Classification of cost
B. In terms of completed units
C. Reference to the job
D. To determine the value of closing inventory
(ix) Equivalent Production refers to production
A. Of items which have high initial costs
B. For classification of cost
C. In terms of completed units
D. To determine the value of closing inventory

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(x) One of the major de-merit of a centralized purchase organization
A. High initial costs
B. Classification of cost
C. Reference to the job
D. To determine the value of closing inventory
(xi) The fixed-variable cost classification has a special significance in the preparation of
A. Cash budget
B. Master budget
C. Flexible budget
D. Capital budget
(xii) Which of the following closely matches with Just In Time (JIT)
A. Decision package
B. Cost of utilities
C. Production strategy
A. Replacement method
(b) State whether the following statements are "True" or "False". [1 $\times 7=7]$
(i) By-products may undergo further processing before sale.
(ii) Materials which can be identified with the given product unit of cost centre is called as indirect materials.
(iii) Increasing Labour Turnover increases the productivity of labour resulting in low costs.
(iv) In case of materials that suffers loss in weight due to evaporation etc. the issue price of the materials is inflated to cover up the losses
(v) Penalties and fines are included in cost accounts to determine the cost of production.
(vi) Chemical works, soap making and Milk dairy production are examples of process costing.
(vii) Split-off point is a point beyond input factors are commonly used for production of multiple products, which can be either joint products or byproducts. After this point, the joint products or by-products gain individual identity.

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(c) Fill in the blanks
(i) In standard costs, $\qquad$ norm is applied as a scale of reference for assessing actual cost to serve as a basis of cost control.
(ii) Material Transfer Note is a $\qquad$ for transferring the materials from one job to other job.
(iii) One of the disadvantages of overtime working is incurring $\qquad$ labour cost.
(iv) CAS-2 deals with Cost Accounting Standard on $\qquad$ determination.
(v) Where the cost and financial accounts are maintained independently of each other, it is indispensable to $\qquad$ them, as there are differences in the profits of two sets of books.
(vi) The $\qquad$ is the starting point in preparing the master budget.

## SECTION - B <br> (Answer any five questions)

2. (a) During the second half of 2022 , Mr Tandon noted down the electricity consumed in his household along with the Bill amount which was raised by the electricity authority. This he did as he was unable to decipher the unit cost and the Meter rental. He asks Mr Nitin his friend who is also a Cost Accountant to let him know the unit cost of electricity and the meter rental separately. The following is the data as noted by Mr Tandon.

|  | Units | Cost |
| :--- | :--- | :--- |
| July | 400 | ₹ 1000 |
| August | 500 | $₹ 1200$ |
| September | 600 | $₹ 1400$ |
| October | 700 | $₹ 1600$ |
| November | 800 | $₹ 1800$ |
| December | 900 | $₹ 2000$ |

You, on behalf of Mr Nitin, are required to calculate the unit cost (variable element of the cost) and the Meter rental (fixed element of the cost). You are to use the high -low method for segregation of the total cost.

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(b) (i) State the objective and scope of Cost Accounting Standard 6 (CAS - 6) on "Material Cost"
(ii) How many cost accounting standards are issued by the Institute of Cost Accountants of India, till date? Also explain the various basis of classification of cost as per CAS - 1 ,
(iii) What are the disclosure norms of overhead as per CAS-3? $[\mathbf{2}+\mathbf{3}+\mathbf{3})=\mathbf{8}]$
3. (a) (i) Nikhil LLP buys its annual requirement of 36,000 units in six installments. Each unit cost ₹ 1 and the ordering cost is ₹ 25 . The inventory carrying cost is estimated at $20 \%$ of unit value. Find the total annual cost of the existing inventory policy. How much money can be saved by using EOQ?
(ii) What is scrap? How is it treated in cost accounting?
(b) (i) What is labour turnover? State the causes of labour turnover? What are the methods of measuring labour turnover?
(ii) In a factory bonus to workman is paid according to Rowan Plan. Time allotted for a job is 40 hours and the normal rate of wages is ₹ 125 per hour. The factory overhead charges are ₹50 per hour for the hours taken. The factory cost of a work order, executed by a worker is ₹ 1,700 . The cost of material in each case is ₹ 1,000 .

Calculate the hours of time taken by the workman to complete the work order.

$$
[3+5=8]
$$

4. (a) In a certain factory three products are made from different materials by similar process. For a typical period, production costs are as under:

|  | Product A <br> $₹$ | Product B <br> $₹$ | Product C <br> $₹$ |
| :--- | :---: | :---: | :---: |
| Material Used | 1,600 | 2,000 | 800 |
| Direct Labour Cost | 1,200 | 1,000 | 400 |
| Overhead (Actual) | 800 | 650 | 350 |

Overhead is charged to cost of each product at the rate of $25 \%$ on prime cost.
Do you see anything wrong in principle in this method of charging overheads? If so, suggest a preferable method.

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(b) Journalize the following transactions assuming that cost and financial accounts are integrated:

| Particulars | Amount (₹) |
| :--- | ---: |
| Raw material purchased | 40,000 |
| Direct materials issued to production | 30,000 |
| Wages paid (30\% indirect) | 24,000 |
| Wages charged to production | 16,800 |
| Manufacturing expenses incurred | 19,000 |
| Manufacturing overhead charged to Production | 18,000 |
| Selling and distribution cost | 4,000 |
| Finished products (at cost) | 40,000 |
| Sales | 58,000 |
| Closing stock | Nil |
| Receipts from debtors | 13,800 |
| Payments to creditors | 12,000 |

5. (a) Lotus Inc manufactures the fountain pen called 'Shikhar'. One of the component of the Pen (The Blank) is made entirely in cost centre CC125. In this cost centre CC 125 , material cost is $₹ 6.00$ per component and each component takes 10 minutes to produce. The machine operator is paid ₹ 72.00 per hour, and machine hour rate is ₹ 150.00 . The setting up of the machine to produce the component 'The Blank' takes 2 hours 20 minutes.

On the basis of this information, prepare a cost sheet showing the production and setting up cost, both in total and per component, assuming that a production batch of:
i. 10 components,
ii. 100 components, and
iii. 1,000 components.

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(b) Deluxe limited undertook a contract for ₹ $5,00,000$ on $1^{\text {st }}$ July 2021. On $30^{\text {th }}$ June 2022 when the accounts were closed, the following details about the contract were gathered:

| Particulars | Amount (₹ ) |
| :--- | ---: |
| Materials purchased | $1,00,000$ |
| Wages paid | 45,000 |
| General expenses | 10,000 |
| Plant purchased | 50,000 |
| Materials on hand 30.6.2022 | 25,000 |
| Wages accrued 30.6.2022 | 5,000 |
| Work certified | $2,00,000$ |
| Cash received | $1,50,000$ |
| Depreciation of Plant | 5,000 |
| Work uncertified | 15,000 |

The above contract contained an escalation clause which read as follows:
"In the event of prices of materials and rates of wages increase by more than $5 \%$ the contract price would be increased accordingly by $25 \%$ of the rise in the cost of materials and wages beyond $5 \%$ in each case".
It was found that since the date of signing the agreement the prices of materials and wage rates increased by $25 \%$ the value of the work certify does not take into account the effect of the above clause.

Prepare the Contract Account.
6. (a) From the following information compute Equivalent Production and prepare a statement of apportionment of cost, and also prepare Process Account.

| Work In Progress <br> (Opening) | 200 units @ ₹ 4 <br> per unit | $100 \%$ Material <br> $40 \%$ Labour and Overheads |
| :--- | :--- | :--- |
| Units introduced | 1,050 |  |
| Transfer to next process | 1,100 units |  |
| Closing stock | 150 units | $100 \%$ Material |

The following information is also provided

Material Cost
Labour
Production Overhead
Total Cost

Amount (₹)
1,050
2,250
1,125
4,425

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(b) Janata Transport Co. has been given a route 20 km long for running buses. The company has a fleet of 10 buses each costing ₹ $25,00,000$ and having a life of 5 years without any scrap value.
From the following estimated expenditure and other details calculate the bus fare to be charged from each passenger.

| Insurance charges | $3 \% \mathrm{p} . \mathrm{a}$. |
| :--- | ---: |
| Annual tax for each bus | ₹ 6,000 |
| Total Garage charges | ₹ $10,000 \mathrm{p} . \mathrm{m}$. |
| Drivers' salary for each bus per month | ₹ $15,000 \mathrm{p} . \mathrm{m}$. |
| Conductor's Salary for each bus per month | ₹ $10,000 \mathrm{p} . \mathrm{m}$. |
| Annual repairs to each bus | ₹ 12,000 |
| Commission to be shared by the driver and conductor <br> equally: $10 \%$ of the takings |  |
| Cost of stationery | ₹ $1,500 \mathrm{p} . \mathrm{m}$. |
| Manager's salary | ₹ $20,000 \mathrm{p} . \mathrm{m}$. |
| Accountant's salary | ₹ $10,000 \mathrm{p} . \mathrm{m}$. |
| Petrol and oil | ₹ 400 per 100 km |

Each bus will make 3 round trips carrying on an average 60 passengers on each trip. The bus will run on an average for 25 days in a month. Assuming $15 \%$ profit on takings, calculate, the bus fare to be charged from each passenger.
7. (a) VAZIR LLP. produces a single product called the 'Checkmate'. The following figures relate to the 'Checkmate' for the period: 2021-2022.

| Activity Level | $\mathbf{5 0 \%}$ | $\mathbf{1 0 0 \%}$ |
| :--- | :---: | :---: |
| Sales and production(units) | 400 | 800 |
|  | $₹$ | $₹$ |
| Sales | $8,00,000$ | $16,00,000$ |
| Production costs: |  |  |
| -Variable | $3,20,000$ | $6,40,000$ |
| -Fixed | $1,60,000$ | $1,60,000$ |
| Selling and distribution costs: |  |  |
| -Variable | $1,60,000$ | $3,20,000$ |
| -Fixed | $2,40,000$ | $2,40,000$ |

The normal level of activity for the year is 800 units. Fixed costs are incurred evenly throughout the year, and actual fixed costs are the same as budgeted.

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There were no stocks of The Checkmate at the beginning of the year.
In the first quarter 220 units were produced and160 units were sold.

You are required to advice the management on the following issues:
(i) Fixed production costs absorbed by The Checkmate if absorption costing is followed.
(ii) Under/over-recovery of overheads during the period.
(iii) Profit as per absorption costing.
(iv) Profit as per marginal costing.
(b) A company manufactures three components which it uses in its finished product. The component workshop is currently unable to meet the demand for all components and is considering the possibility of sub-contracting.

|  | Component A <br> (₹) | Component B <br> (₹) | Component C <br> (₹) |
| :--- | :---: | :---: | :---: |
| Variable cost of production | 3 | 4 | 6 |
| Outside purchase price | 2 | 6 | 12 |
| Machine hours per unit | 1 | 0.5 | 2 |
| Labour hours per unit | 2 | 3 | 4 |

Advise the management on the following issues with expressive calculations to support your answer.
a. Components that should be bought out if the company operates at full capacity.
b. Components that should be bought out if production is limited to 4,000 machine hours per week.
c. Components that should be bought out if production is limited to 4,000 labour hours per week.
8. (a) The following are extracts from the cost records of Milano Inc. which follows a standard cost system. The standard cost in reference to one unit of the products 'TICO' is given as under. As such three materials, namely A, B and C are used in the mix to produce one unit of TICO.

| Materials | Quantity (kg) | Price (₹) |
| :---: | :---: | :---: |
| A | 40 | 76 |
| B | 10 | 50 |
| C | 50 | 20 |

The standard input mix is 100 kg and the standard output of the finished product is

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90 kg as reflected in the above standard cost card.
For the particular period the actual results were also extracted from the cost records, which is given below.

| Materials | Quantity (kg) | Price (₹) per kg |
| :---: | :---: | :---: |
| A | $1,95,000$ | 80 |
| B | 42,500 | 52 |
| C | $2,25,000$ | 21 |

For the particular period the actual output of TICO is $4,18,500 \mathrm{~kg}$
You, as the cost accountant of the company, are required to analyse material variances and report the same to the manager.
[7]
(b) A sales budget for the first five months of 2022 is given for a particular product line manufactured by Kaehler Co. Ltd.:

| Month | Budgeted Sales (Units) |
| :---: | :---: |
| January | 10800 |
| February | 15600 |
| March | 12200 |
| April | 10400 |
| May | 9200 |

The inventory of finished products at the end of each month is to be equal to 25 per cent of the sales estimate for the next month. On January 1, there were 2700 units of product in hand. No work is in process at the end of any month Each unit of product requires two types of materials in the following quantities:

Material A: 4 units
Material B: 5 units
Material equal to one half of the next month's requirements is to be in hand at the end of each month. This requirement was met on January 1, 2022.

Analyse the above budgeted volumes and determine the quantities of each type of material to be purchased each month for the first quarter of 2022.

