## Paper 8- Cost Accounting

## Paper-8: Cost Accounting

Full Marks: 100
Time allowed: 3 hours

## Section - A

## Answer the following questions:

1. (a) Choose the correct answer from the given four alternatives:
(i) Cost Unit of Hospital Industry is
a. Tonne
b. Student per year
c. Kilowatt Hour
d. Patient Day
(ii) Depreciation is an example of-
a. Fixed Cost
b. Variable Cost
c. Semi Variable Cost
d. None
(iii) Idle time is
a. Time spent by workers in factory
b. Time spent by workers in office
c. Time spent by workers off their work
d. Time spent by workers on their job
(iv) Over time is
a. Actual hours being more than normal time
b. Actual hours being more than standard time
c. Standard hours being more than actual hours
d. Actual hours being less than standard time
(v) Which of the following items is not included in preparation of cost sheet?
a. Carriage inward
b. Purchase returns
c. Sales Commission
d. Interest paid
(vi) Operating costing is applicable to:
a. Hospitals
b. Cinemas
c. Transport undertaking
d. All of the above
(vii) If sales are ₹ 90,000 and variable cost to sales is $75 \%$. Contribution is
a. ₹ 21,500
b. ₹ 22,500
c. ₹ 23,500
d. ₹ 67,500
(viii) $\mathrm{P} / \mathrm{V}$ Ratio will increase if the
a. There is a decrease in fixed cost
b. There is an increase in fixed cost
c. There is a decrease in selling price per unit
d. There is a decrease in variable cost per unit.
(ix) Difference between standard cost and actual cost is called as
a. Wastage
b. Loss
c. Variance
d. Profit
(x) Sales Budget is a ...
a. Expenditure budget
b. Functional budget
c. Master budget
d. None
(b) Match the statement in Column I with the most appropriate statement in Column II:
$[1 \times 5=5]$

| Column I |  | Column II |  |
| :--- | :--- | :--- | :--- |
| (i) | Job Ticket | (A) | A Technique of Inventory Control |
| (ii) | Escalation Clause | (B) | BEP Chart |
| (iii) | VED Analysis | (C) | Contract Costing |
| (iv) | Angle of Incidence | (D) | Labour Cost Plus Factory Overhead |
| (v) | Conversion Cost | (E) | A Method of Time Booking |

(c) State whether the following statements are True' or 'False':
(i) A flexible budget is one, which changes from year to year
(ii) Variances are calculated for both material and labour.
(iii) Multiple Costing is suitable for the banking Industry.
(iv) Contact costing is variant of job costing
(v) Closing stock of finished goods should be valued on the basis of cost of sales.
(d) Fill in the blanks suitably:
(i) Administration overheads are usually absorbed as a percentage of $\qquad$
(ii) Variable cost per unit is $\qquad$
(iii) Bin card shows $\qquad$ details of materials.
(iv) Sum of material price variance and material usage variance is equal to $\qquad$ variance.
(v) Contribution earned on Break-even sales equals to $\qquad$ of the firm.

## Section - B

## (Answers any five Questions, working notes should form part of the answer.)

2. (a) M Two workmen, Gyani and Jeetu, produce the same product using the same material. Their normal wage rate is also the same. Gyani is paid bonus according to the Halsey System, while Jeetu is paid bonus according to the Rowan System. The time allowed to make the product is 40 hours. Gyani takes 25 hours while Jeetu takes 32 hours to complete the product. The factory overheads are charged @ $125 \%$ of direct labour cost.
The factory cost for the product for Gyani is ₹ 8,925 and for Jeetu it is ₹9,456. You are required to:
(i) find the normal rate of wages;
(ii) find the cost of materials;
(iii) Prepare a statement comparing the element wise factory cost of the products as made by the two workmen.
$[21 / 2+21 / 2+5=10]$
(b) A factory has three production departments $\mathrm{A}, \mathrm{B}$ and C and also two service departments ' X ' and ' Y '. The primary distribution of the estimated overheads in the factory has just been completed. These details and the quantum of service rendered by the service departments, to the other departments are given below:

|  | A | B | C | $\mathbf{X}$ | Y |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Primary distribution (₹) | 2,40,000 | 2,10,000 | 2,50,000 | 1,40,000 | 96,000 |
| Service rendered by |  |  |  |  |  |
| Dept ' X ' | 30\% | 20\% | 35\% | - | 15\% |
| Dept ' Y ' | 25\% | 40\% | 25\% | 10\% | - |

Prepare a statement showing the distribution of service dept. overheads to the production departments, by the simultaneous equation method.
3. (a) How classification of costs is determined under CAS-1
(b) The following balances are shown in the Cost Ledger of Spark Ltd. as on 1st October, 2022:

| Particulars | Dr. (₹) | Cr. ( ₹) |
| :--- | ---: | ---: |
| Work in progress Account | 7,056 |  |
| Factory overheads suspense Account | 360 |  |
| Finished stock Account | 5,274 |  |
| Stores Ledger Control Account | 9,450 |  |
| Administration Overheads Suspense A/C | 180 |  |
| General Ledger Adjustment Account |  | 22,320 |

Transactions for the year ended 30th September, 2022

| Particulars | $₹$ |
| :--- | ---: |
| Stores issued to production | 45,370 |
| Stores purchased | 52,400 |
| Material purchased for direct issued to production | 1,135 |
| Wages paid (including indirect labour ₹ 2,520) | 57,600 |
| Finished goods sold | $1,18,800$ |
| Administration expenses | 5,400 |
| Selling expenses | 6,000 |


| Factory overheads | 15,600 |
| :--- | ---: |
| Store issued for Capital work-in-Progress | 1,500 |
| Finished goods transferred to warehouse | $1,08,000$ |
| Store issued for factory repairs | 2,000 |
| Factory overheads recovered to production | 16,830 |
| Administration overheads charged to production | 4,580 |
| Factory overheads applicable unfinished work | 3,080 |
| selling overheads allocated to sales | 5,500 |
| Stores lost due to fire in store (not insured) | 150 |
| Administration expenses on unfinished work | 850 |
| Finished goods stock on 30.9.2017 | 14,274 |

You are required to record the entries in the cost ledger for the year ended 30th September, 2022.
4. (a) A work order for 100 units of a commodity has to pass through four different machines of which the machine hour rates are: Machine $\mathrm{P}-₹ 1.25$, Machine $\mathrm{Q}-₹ 2.50$, Machine $\mathrm{R}-₹ 3$ and Machine S - ₹ 2.25 .
Following expenses have been incurred on the work order - Materials ₹8,000 and Wages ₹500. Machine - P has been engaged for 200 hours. Machine - Q for 160 hours, Machine - R for 240 hours and Machine - S for 132 hours. After the work order has been completed, materials worth ₹ 400 are found to be surplus and are returned to stores. Office overhead used to be $40 \%$ of works costs, but on account of all-round rise in the cost of administration, distribution and sale, there has been a $50 \%$ rise in the office overhead expenditure. Moreover, it is known that $10 \%$ of production will have to be scrapped as not being up to the specification and the sale proceeds of the scrapped output will be only $5 \%$ of the cost of sale. If the manufacturer wants to make a profit of $20 \%$ on the total cost of the work order, find out the selling price of a unit of commodity ready for sale.
(b) A product passes through three processes - A, B and C. 10,000 units at a cost of $₹ 1.10$ were issued to Process A. The other direct expenses were as follows:

|  | PROCESS-A | PROCESS-B | PROCESS-C |
| :--- | :---: | :---: | :---: |
| Sundry materials | 1,500 | 1,500 | 1,500 |
| Direct labour | 4,500 | 8,000 | 6,500 |
| Direct expenses | 1,000 | 1,000 | 1,503 |

The wastage of process: A was 5\% and in process B 4\%
The wastage of process ' A ' was sold at $₹ 0.25$ per unit and that of ' B ' at $₹ 0.50$ per unit and that of C at ₹ 1.00 .

The overhead charges were $160 \%$ of direct labour. The final product was sold at $₹ 10$ per unit fetching a profit of $20 \%$ on sales. Find out the percentage of wastage in Process ' C '.
5. (a) Hera Transport Service Company is running four (4) buses between two cities, which are 40 kilometres apart. Seating capacity of each bus is 40 passengers. The following particulars are furnished by the company for March 2023:

| Particulars | Amount (₹) |
| :--- | ---: |
| Salaries of Office Staff | $1,50,000$ |
| Wages of drivers, conductors and cleaners | $3,60,000$ |
| Diesel oil \& other Lubricants | $3,50,000$ |


| Repairs \& Maintenance | $1,00,000$ |
| :--- | ---: |
| Insurance, Taxation etc. | $2,60,000$ |
| Depreciation | $2,50,000$ |
| Interest \& Other Expenses | $2,00,000$ |
| Total | $16,70,000$ |

Passengers carried were $80 \%$ of seating capacity. All buses run on all days of the month. Each bus made one round trip per day.
Find out the cost per passenger - Kilometre.
(b) New Construction Ltd. is engaged in a contract during the year. Following information is available at the year end.

| Particulars | Amount Contract <br> $(₹)$ |
| :--- | ---: |
| Contract price | $6,00,000$ |
| Material delivered direct to site | $1,20,000$ |
| Materials issued from stores | 40,000 |
| Materials returned to stores | 4,000 |
| Materials at site at the end of year | 22,000 |
| Direct labour payments | $1,40,000$ |
| Direct expenses | 60,000 |
| Architect's fees | 2,500 |
| Establishment charges | 24,500 |
| Plant installed at cost | 80,000 |
| Value of plant at the end of year | 65,000 |
| Accrued wages at the end of year | 10,000 |
| Accrued expenses at the end of year | 6,000 |
| Cost of contract not certified by architect | 23,000 |
| Value of contract certified by architect | $4,20,000$ |
| Cash received from contractor | $3,78,000$ |

During the period, materials amounting to ₹9,000 have been transferred to another contract to another place.
You are required to show the Contract $\mathrm{A} / \mathrm{c}$.
6. (a) The sales turnover and profit during two periods were as follows:

| Period | Sales $(₹)$ | Profit $(₹)$ |
| :---: | :---: | :---: |
| 1 | $3,50,000$ | 20,000 |
| 2 | $4,50,000$ | 40,000 |

What would be probable trading results with sales of $₹ 2,80,000$ ? What amount of sales will yield a profit of $₹ 1,00,000$ ?
(b) Mr. Young has ₹ $1,50,000$ investment in a business. He wants a $15 \%$ profit on his money. From an analysis of recent cost figures, he finds that his variable cost of operating is $60 \%$ of sales; his fixed costs are ₹ 75,000 per year. Show supporting computations for each answer.
(i) What sales volume must be obtained to break-even?
(ii) What sales volume must be obtained to his $15 \%$ return on investment?
(iii) Mr. Young estimates that even if he closed the doors of his business he would incur ₹ 25,000 expenses per year. At what sales would be better off by locking his sales up?

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7. (a) The standard labour complement and the actual labour complement engaged in a week for a job are as under:

| Skilled workers | Semi-skilled <br> workers |  | Unskilled <br> workers |
| :--- | :---: | :---: | :---: |
| a) Standard no. of workers in the gang | 32 | 12 | 6 |
| b) Standard wage rate per hour $(₹)$ | 3 | 2 | 1 |
| c) Actual no. of workers employed in the gang during the week | 28 | 18 | 4 |
| d) Actual wage rate per hour $(₹)$ | 4 | 3 | 2 |

During the 40 hour working week the gang produced 1,800 standard labour hours of work. Calculate

1) Labour Efficiency Variance
2) Mix Variance
3) Rate of Wages Variance
4) Labour Cost Variance
(b) Draw a Material Procurement Budget (Quantitative) from the following information: Estimated sales of a product 40,000 units. Each unit of the product requires 3 units of material A and 5 units of material B. Estimated opening balances at the commencement of the next year: Finished product $=5,000$ units Material $\mathrm{A}=12,000$ units $\mathrm{B}=20,000$ units Material on order: Material $\mathrm{A}=$ 7,000 units Material $B=11,000$ units The desirable closing balance at the end of the next year: Finished product $=7,000$ units Material $A=15,000$ units Material $B=25,000$ units Material on order: Material $\mathrm{A}=8,000$ units Material $\mathrm{B}=10,000$ units.
8. Write short notes on any three of the following:
(a) Cost Centre
(b) Financial Accounting and Cost Accounting
(c) Just-in-Time (JIT)
(d) Limitations of Marginal Costing
