# COST AND MANAGEMENT ACCOUNTING-I---HONOURS 

First Paper
(CC 2.1 Ch)
Full Marks:80

Group-A

1. What do you mean by the term 'Cost accounting'? Distinguish between Cost Center and Cost

Unit (2+3)
Or,
How cost can be classified on the basis of Management Decision Making
2. (a) What do you mean by period cost? $(2+3)$
(b) Mention the cost unit to be applicable against each of the following industries.
i Automobile
ii Coal
iii Hospital
iv Pharmaceutical
v Transport (Rail/ Road)
vi Nursing
3. State with reason the behavior of the following cost and calculate cost for 2800 units: ( 5 marks)

| Production | 1500 units | 2000 units |
| :--- | :--- | :--- |
| Cost A (Rs) | 12,000 | 16,000 |
| Cost B (Rs) | 9,000 | 9,000 |
| Cost C (Rs) | 7,000 | 8,000 |

Or,
What do you mean by under and over absorption of factory overhead? State any two methods of treatment of such under and over absorption in cost accounts.

5
4. The following particulars are available in respect of a contract as on 31.03.2018: 5

|  | Rs |
| :--- | :--- |
| Contract Price | $10,00,000$ |
| Total cost of contract till 31.03.2018 | $5,50,000$ |
| Cost of uncertified work | 25,000 |
| Cash received (retention money being 15\%) | $5,31,250$ |

Compute the amount of profit that may be transferred to profit and loss account and the value of Work in progress.
Or,
A company estimated its cost as below:
Direct materials - Rs 14,000; Direct wages-Rs 10,000; factory overhead- $60 \%$ of direct wages;
Administration and selling overhead (excluding commission)— $20 \%$ of Work cost.
If sales commission is $5 \%$ on sales and rate of profit is $25 \%$ on total cost, find the selling price.

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## Group- B

(Marks: 30)
5. (a) Discuss the concept of Economic Ordering Quantity (3+7)
(b) From the following particulars compute:
i Reorder level
ii Reorder quantity
iii Average stock level
iv Maximum re order period:
Normal usage:- 100 units per day
Minimum usage-60 units per day
maximum usage- 130 units per day Minimum level—1400 units maximum level—7800 units
Re order period: Normal 25 days, Minimum 20 days.
Or,
The particulars of receipts and issues of materials in a factory in March 2018 are as under: (10 marks)

| March 1 | Opening balance | 1000 kgs | @Rs 5 kg |
| :--- | :--- | :--- | :--- |
| March 8 | Purchased | 2000 kgs | @Rs 6 per kg |
| March 17 | Issued | 1400 kgs |  |
| March 21 | Purchased | 1000 kgs | @Rs 7 per kg |
| March 30 | Issued | 2000 Kg |  |

Calculate the value of stock as on 31-03-2018 and the value of materials issued using LIFO method and weighted average method. (preparation of stores ledger account is not mandatory).
6. A, B, C in a particular day had produced 200,250 and 300 pieces respectively of a product " P ". The time allowed for production of 25 units of " P " is 1 hour and the hourly rate of wage payment is Rs 8 . Calculate for each of these three workers the following under Halsey premium bonus ( $50 \%$ sharing) and Rowan premium Bonus methods of labour remuneration.
i Earnings for the day (8 hours per day) and
ii Effective rate of earnings per hour
Or,
What is overtime premium? How can it be treated in costs accounts? Suggest two steps that can be taken to control overtime. (10 marks)
7. The following is the trading and profit and loss account of Deep Industries Ltd. For the year ended $31^{\text {st }}$ December 2018:

|  | Rs |  | Rs |
| :--- | :--- | :--- | :--- |
| To materials | 45,000 | By sales (4,800 units) | 96,000 |
| To wages | 33,000 | By Closing Stock <br> $(1,200$ units $)$ | 20,400 |

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| To works expenses | 24,000 |  |  |
| :--- | :--- | :--- | :--- |
| To administrative <br> expenses | 6,000 |  |  |
| To net profit | 8,400 |  |  |
|  | $1,16,400$ |  | $1,16,400$ |

The company's cost records show that:

1. Works overhead have been absorbed at Rs 3 per unit produced and
2. Administrative overheads have been absorbed at Rs 1.50 per unit produced Assuming there is nothing by way of WIP either at the beginning or at end and there is no opening stock of finished goods, prepare:
3. A statement of cost indicating the net profit and
4. A statement reconciliation the profit as disclosed by cost accounts and that shown in financial accounts.

## Group - C

(Marks- 30)
8. Y Ltd. Produces a single product which undergoes two processes. From the following information prepare process accounts, Normal loss account, abnormal loss account and abnormal gain account (15 marks)

| Process | A | B |
| :--- | :--- | :--- |
| Raw materials (3000 units) Rs | 15,000 | - |
| Additional materials (Rs) | 1000 | 780 |
| Direct wages (Rs) | 14,000 | 20,000 |
| Production overhead (Rs) | 3000 | 7500 |
| Normal Loss \% of Input | $10 \%$ | $5 \%$ |
| Scrap value per unit | Rs2 | Rs5 |
| Output in units | 2,800 | 2,600 |

## Or,

A transport company is running four buses between Delhi and Alwar, covering a distance of 100 kms . The seating capacity of each bus is 40 passengers. The following particulars are obtained from its books for the month of October 2012:

| Wages of drivers, conductors | 48,000 |
| :--- | :--- |
| Salaries of office staff | 15,000 |
| Honorarium of account | 5,000 |
| Diesel, oil etc. | 80,000 |
| Repairs and maintenance | 16,000 |
| Road tax and insurance | 32,000 |
| Depreciation | 52,000 |
| Interest and other charges | 40,000 |

Actual passengers carried were $75 \%$ of the seating capacity. All the busses ran for 30 days. Each bus made one round trip per day. Find out the fare the company should charge per passenger $/ \mathrm{km}$ if it wants a profits of $20 \%$ on the takings.

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9. From the following particulars relating to production and sales for the year ended 31.03.2019 prepare a statement showing cost and profit: ( 15 marks)

|  | Rs | Rs |  | Rs | Rs |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Raw materials <br> $(1.04 .2018)$ |  | 12,500 | Direct labour |  | $1,35,000$ |
| WIP (1.04.2018) |  |  | Office expenses <br> Rs 2 pu |  | -- |
| At prime cost | 15,000 | Selling expenses <br> Rs 1 Pu |  | -- |  |
| Factory expenses | 3,000 |  | Distribution <br> expenses |  | 15,000 |
| Material purchased |  | $1,10,000$ | Sales (28,000 <br> units $)$ | Raw materials <br> $(31.03 .2019)$ | $4,00,000$ |
| Freight on materials |  | 5,000 | WIP <br> $(31.03 .2019)$ | 20,000 |  |
| Loss of material by <br> fire |  | 5,000 | At prime costs | 10,000 |  |
| Factory expenses |  | 70,000 | Factory expenses | 8,000 |  |
| Chargeable expenses |  | 25,000 |  | 18,000 |  |

Stock of finished goods

| Date | Units | Value |
| :--- | :--- | :--- |
| 1.04 .2018 | 8,000 | 60,000 |
| 31.03 .2019 | 10,000 | $?$ |

Assumes sales are made on FIFO basis.

## Solutions:

1. "Cost accounting" is concerned with setting up budgets and actual cost of operations, processes, departments or products and the analysis of variances, profitability or social use of funds. The managers, to support decision making to cut a company's costs and improve profitability, use cost accounting.

The distinction between cost centre and cost unit are:

| Cost centre | Cost unit |
| :--- | :--- |
| Cost centre is a location, person or an item of <br> machinery or a group of machineries in <br> respect of which all costs are accumulated for <br> the purpose of cost ascertainment and cost <br> control | Cost unit is a unit of quantity of product, <br> service in respect of which cost is ascertained |
| Cost centre may be personal or impersonal or <br> it may be production or service cost centre | No distinction is made in respect of cost unit |
| Cost centre is unique | Cost unit may be composite cost unit e.g. <br> ton-km or bed per day etc. |

OR,
Classification of cost on the basis of management decision making

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i. Differential cost
ii. Relevant cost
iii. Sunk cost
iv. Opportunity cost
i. Differential cost:- the concept of differential cost is important for decision making. All alternative costs are evaluated at the time of decision making
ii. Relevant costs:- it is the cost that are effected by decisions. The cost for example in case of three joint products $\mathrm{x} 1, \mathrm{x} 2, \mathrm{x} 3$ where futher processing cost is considered for each product but joint cost is irrelevant
iii. Sunk Costs:- the cost which is incurred in the past and is nothing to do with the future decisions.
iv. Opportunity cost:- it is the cost which has not been incurred and paid in cash. It is the loss of earnings or potential benefits arising out of utilizing an asset for another purpose.
2. (a). Period costs are those costs which are not included in the product costs. At the time of stock valuation, no part of these costs are taken into consideration. Sales commission, advertisement are good example of period cost. The costs are charged to the profit and loss account of the period in which they have been incurred.
(b).

| Industry | Cost per unit |
| :--- | :--- |
| Automobile | 1 or 100 unit |
| Coal | Ton |
| Hospital | patient per day/ outdoor patient visit |
| Pharmaceutical | Gram/ jar/tube/kg |
| Transport | Passenger-km, ton -km |
| Nursing | Per bed per day |

3. Ans: Solution

| Cost item | Nature of cost |
| :---: | :---: |
| A | Variable cost |
| B | Fixed cost |
| C | Semi variable cost |
| (a) Cost item A | Rs 12000/1500U= Rs 8 per unit |
| (b) Cost item B | Rs9000 (fully fixed cost) |
| (c) Cost item C: <br> 1. Variable proportion | Change in total cost/ change in output $\begin{aligned} & =\text { Rs } 8000-\text { Rs } 7000 / 2000 \mathrm{u}-1500 \mathrm{u} \\ & =\text { Rs } 1000 / 500 \text { units } \\ & =\text { Rs } 2 \text { per unit } \end{aligned}$ |
| 2. Fixed cost included therein | Rs7,000- (1500*Rs2)= Rs4,000 |

Computation of total cost for Rs 2800 units of output:

| A (2800 units@8) | 22,400 |
| :--- | :--- |
| B (fully fixed cost) | 9,000 |
| C (2,800 units @Rs2 +Rs 4000) | 9,600 |
| Total Cost | $\mathbf{4 1 , 0 0 0}$ |

Or,

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## Over and under absorption of overhead:

Actual overhead costs incurred are equal to the total overhead absorbed. If there is any difference between the estimated costs/ activities and actual costs/ activities, the result is over or under absorption of overhead.
If the overhead incurred is more than overhead absorbed an under absorption of overhead occur
If the overhead incurred is less than the overhead absorbed an over absorption of overhead will occur.

## Disposal of over/ under absorption of overhead

1. Transfer to costing profit and loss account: under this method and under/ over absorption of overhead are charged or credited to costing profit and loss account fot the period. In case of under absorption it is debited to costing profit and loss account and in case of over absorption it is credited to costing profit and loss account.
2. Use of supplementary rate:

A supplementary overhead rate is calculated by taking into consideration under / over absorption of overhead and the base for calculation of original overhead rate (eg: labour hour, machine hour)

## Supplementary rate= actual overhead- overhead absorbed/ base (machine hr, labour hr etc.)

Supplementary over head rate is computed at the end of each month and it is used to adjust the value of finished product/ job, WIP of the concerned period.

Ans: 4
a) Value of work certified= cash received/ 100\%-retention percentage
$=5,31,250 / 100 \%-15 \%$
$=6,25,000$
b) Calculation of notional profit

| Value of work certified | $6,25,000$ |
| :--- | :--- |
| + cost of work uncertified | 25,000 |
|  | $6,50,000$ |
| $(-)$ total cost of contract price up to date | $5,50,000$ |
|  | $1,00,000$ |

Calculation of percentage of completion
$=$ value of work certified + cost of work uncertified/ contract price * 100
$=6,25,000+25,000 / 10,00,000 * 100$
= 65\%
c) Profit to be credited to the profit and loss account

$$
\begin{aligned}
& \quad \frac{2}{3} * \text { Notional profit } * \text { cash received/ work certified } \\
& =\frac{2}{3} * 1,00,000 * 5,31,000 / 625000 \\
& =56,667
\end{aligned}
$$

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d) Value of WIP

| Cost of contract till date | $5,50,000$ |
| :---: | :--- |
| + profit transferred to P/L | 56667 |
|  | $6,06,667$ |
| $-\quad$ Cash received | $5,31,250$ |
| Value of WIP | $\mathbf{7 5 , 4 1 7}$ |

Or,

Let the selling price be " X "

| Particulars | Amount |
| :--- | :--- |
| Direct material costs | 14,000 |
| Direct wages | 10,000 |
| Prime costs | 24,000 |
| Add: factory overhead (60\% of direct wages) | 6,000 |
| Works costs | 30,000 |
| Add: adm \& selling overhead (20\% of WC) | 6000 |
| Add: sales commission ( 5\% of sales of Rs X | 0.05 X |
| Cost of sales (total costs) | $36,000+0.05 \mathrm{X}$ |
| Add: profit (25\% on total cost) | $9000+0.0125 \mathrm{X}$ |
| Selling price | $45,000+0.0625 \mathrm{X}$ |

We already assumed selling price as X
Therefore,
$45,000+0.0625 \mathrm{X}=\mathrm{X}$
Or, $45,000=\mathrm{X}-0.0625 \mathrm{X}$
Or, $45,000=0.9375 \mathrm{X}$
Or, $X=45,000 / 0.9375$
$=$ Rs 48,000
Therefore selling price is Rs 48,000
Sales commission $=0.05 \mathrm{X}=0.05^{*}$ Rs 48,000
Rs 2400
Profit $=9,000+0.0125 \mathrm{X}=9000+0.0125 * 48,000=9000+600=$ Rs 9600

## Group- B

5 (a). Economic order quantity EOQ is the order size that minimize the sum of the costs of ordering stock, the cost of holding stock and the shortage cost
$\mathrm{EOQ}=\frac{\sqrt{2 A O}}{H}$
Where,
$\mathrm{E}=\mathrm{EOQ}$
A= annual demand
$\mathrm{O}=$ Ordering cost
$\mathrm{H}=$ Holding cost per unit per year

5 (b)

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i We know,
Minimum level $=$ Re order level - (Normal usage $*$ Normal reorder period)
1,400 units= Reorder level- ( 100 units*25)
Or, Reorder level $=1400$ units +2500 units
Or, Reorder level $=3900$ units
ii Maximum level $=$ re order level $-($ Min usage $* \min$ reorder period $)+$
reorder quantity
$7800 \mathrm{u}=3900 \mathrm{u}-(60 \mathrm{u} * 20)+$ re order quantity
Or, $7800 \mathrm{u}=2700 \mathrm{u}+$ re order quantity
Or, re order quantity $=7800$ units $-2700 u$
Or, re order quantity $=5,100$ units.
iii. average stock level $=$ maximum level + minimum level $/ 2$

$$
\begin{aligned}
& =7800 \text { units }+1400 \text { units } / 2 \\
& =4600 \text { units }
\end{aligned}
$$

v. Normal re order period = maximum re order period + minimum reorder period/2
$2 * 25$ days $=$ maximum re order period +20 days
Or, 50 days- 20 days $=$ maximum re order period
Or, maximum reorder period= 30 days
5 or,

## STORE LEDGER ACCOUNT )LIFO

|  | RECEIVED |  |  | ISSUED |  |  | BAANCE |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| DT | QTY | RATE | AMOUNT | QTY | RATE | AMOUNT | QTY | RATE | AMOUNT |
| March | - | - | - | - | - | - | 1000 | 5 | 5000 |
| $1 / 2019$ |  |  |  |  |  |  |  |  |  |
| March8/ | 2000 | 6 | 12000 | - | - | - | 1000 | 5 | 5000 |
| 2019 |  |  |  |  |  |  | 2000 | 6 | 12000 |
| March | - | - | - | 1400 | 6 | 8400 | 1000 | 5 | 5000 |
| $12 / 2019$ |  |  |  |  |  |  | 600 | 6 | 3600 |
| March | 1000 | 7 | 7000 | - | - | - | 1000 | 5 | 5000 |
| $21 / 2019$ |  |  |  |  |  |  | 600 | 6 | 3600 |
|  |  |  |  |  |  |  | 1000 | 7 | 7000 |
| March | - | - | - | 1000 | 7 | 7000 | 600 | 5 | 3000(cl |
| $30 / 2019$ |  |  |  | 600 | 6 | 3600 |  |  | stock) |
|  |  |  |  | 400 | 5 | 2000 |  |  |  |

Store ledger (weighted average)

|  | RECEIVED |  |  | ISSUED |  |  | BAANCE |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| DT | QTY | RATE | AMOUNT | QTY | RATE | AMOUNT | QTY | RATE |  |
| AMOUNT |  |  |  |  |  |  |  |  |  |

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| March <br> $1 / 2019$ | - | - | - | - | - | - | 1000 | 5 | 5000 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| March8/ <br> 2019 | 2000 | 6 | 12000 | - | - | - | 3000 | 5.67 | 17010 |
| March <br> $17 / 2019$ | - | - | - | 1400 | 5.67 | 7938 | 1600 | 5.67 | 9072 |
| March <br> $21 / 2019$ | 1000 | 7 | 7000 | - | - | - | 2600 | 6.18 | 16068 |
| March <br> $30 / 2019$ | - | - | - | 2000 | 6.18 | 12,360 | 600 | 6.18 | 3708 )cl <br> stock) |

Workings:

| Opening stock | 1000 kg | 5,000 |
| :--- | :--- | :--- |
| +purchase | 2000 kg | 12,000 |
|  | 3000 kg | 17,000 |

Cost per $\mathrm{kg}=17000 / 3000=5.67$

| Stock in hand | 1600 | 5.67 | 9072 |
| :--- | :--- | :--- | :--- |
| +purchase | 1000 |  | 7000 |
|  | 2600 |  | 16072 |
| 6.18 |  |  |  |

Ans 6
Statement showing time taken, time allowed and time saved

|  | A | B | C |
| :--- | :--- | :--- | :--- |
| Production in units | 200 | 250 | 300 |
| Time allowed(@25 pieces per <br> hr) | 8 | 10 | 12 |
| Time taken in hours | 8 | 8 | 8 |
| Time saved | 0 | 2 | 4 |

1. Calculation of earnings per day
(a) Halsey premium bonus method earnings $=$ hours worked $*$ rate per hour $+50 \%$ of time saved $*$ rate per hour

A's earning per day $=8 * 8+50 \%$ of nil* Rs $8=$ Rs 64
B's earnings per day $=8 * 8+50 \% * 2 *$ Rs $8=$ Rs 72
C's earnings per day $=8 * 8+50 \% * 4 *$ Rs $8=$ Rs $64+$ Rs $16=$ Rs 80
(b) Rowan premium bonus methods

Earnings=hours worked $*$ rate per hour $+\frac{\text { timesaved }}{\text { timeallowed }} *$ time taken $*$ rate per hour A's earnings per day $=8 *$ Rs $8(0 / 8) * 8 * \operatorname{Rs} 8=$ Rs 64

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B's earnings per day $=8 * \operatorname{Rs} 8+(2 / 10) * 8 * \operatorname{Rs} 8=$ Rs $64+$ Rs $12.80=$ Rs 76.80
C's earnings per day $=8 *$ Rs $8+(4 / 12) * 8 *$ Rs $8=$ Rs $64+$ Rs $21.33=$ Rs 85.33

## Calculation of effective earnings per hour

|  | A | B | C |
| :--- | :--- | :--- | :--- |
| Halsey premium | Rs64/8= Rs8 | Rs72/8= Rs9 | Rs80/8=Rs10 |
| Rowan premium bonus <br> method | Rs64/8= Rs8 | Rs 76.80/8=Rs9.60 | Rs85.33/8=Rs 10.67 |

Or,

## Overtime premium:-

Overtime hours at normal rate will be treated as direct labour cost and it is to be charge to the job. Overtime premium will be treated according to situations. The cost accounting treatment depends upon the following reasons:

1. When overtime is restored at the request of the customer, the entire amount of wages including overtime premium should be charged to the job itself
2. When overtime is required to make up lost production due to fire, flood, strike etc the overtime premium should be charged to profit and loss account
3. A particular job may be taken on urgent basis with prior knowledge that overtime will be required and the quotation of the job may include the overtime premium factor.
4. If there is any bottleneck in the production process and overtime is necessary the overtime premium should be treated as factory overhead
5. When overtime is necessary due to negligence of workers of other department the overtime premium should be charged to the concerned department.

## Control of overtime

1. All overtime should be properly authorized and the document authorizing overtime should be transferred to the payroll department for verification of overtime booking.
2. If there is any bottleneck in the production process for which overtime is arising proper steps should be taken to remove that bottlenecks
3. A daily report of overtime time work should be submitted to the works manager
4. There should be a system of preventive maintenance to avoid or reduce machine breakdown
5. Skill development programme should be undertaken for the workers to improve labour efficiency and to reduce overtime.

Ans 7:

## Deep Industries Ltd

## Statement of cost and profit as per cost accounts

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| Materials | 45,000 |
| :--- | :--- |
| Wages | 33,000 |
| Prime cost | 78,000 |
| Works overhead $(6,000 * 3)$ | 18000 |
| Factory cost/ works cost | 96,000 |
| Administrative overheads $\left(6,000^{*}\right.$ Rs1.50) | 9,000 |
| Cost of production $(6,000 \mathrm{u})$ | 105,000 |
| Less: closing stock (workings) | 21,000 |
| Cost of goods sold | 84,000 |
| Selling and distribution overheads | Nil |
| Cost of sales | 84,000 |
| Net profit (Bal fig) | 12,000 |
| Sales | 96,000 |

Statement showing the reconciliation of profit/ loss as per cost and financial accounts

| Net profits as per financial accounts |  | 8400 |
| :--- | :--- | :--- |
| Add: under -absorption of works overhead |  |  |
| As per financial accounts | 24,000 |  |
| As per cost accounts | 18,000 |  |
| Add: overvaluation of closing stock as per <br> cost accounts: |  |  |
| As per cost accounts | 21,000 | 600 |
| As per financial accounts | 20,400 | 15,000 |
|  |  |  |
|  | 9,000 | 3,000 |
| Less: over absorption of administrative <br> overhead: <br> As per cost accounts | 6,000 | 12,000 |
| As per financial accounts |  |  |
| Net profit as per cost accounts |  |  |

Working notes:
a. Number of units produced= number of units sold+ number of units unsold
$=4800 u+1200 u=6,000 u$
b. Cost of production $=$ Rs $1,05,000$
c. Number of units unsold $=1,200$ units
d. Value of closing stock= Rs $1,05,000 / 6,000 * 1200=$ Rs 21,000

Ans. 8

## In the books of Y ltd.

Process A account

| Particulars | Q | R | A | Particulars | Q | R | A |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| To R/M | 3,000 | 5 | 15,000 | By Normal Loss <br> (Note 1) | 300 | 2 | 600 |

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| To materials (add) | - | - | 1,000 | By process B a/c | 2800 | 12 | 33,600 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| To direct wages |  |  | 14,000 |  |  |  |  |
| To production <br> overhead |  |  | 3,000 |  |  |  |  |
| To abnormal gain <br> (note 2) | 100 | 12 | 1200 |  |  |  |  |
|  | 3100 |  | 34,200 |  | 3100 |  | 34,200 |

## Process B account

| Particulars | Q | R | A | Particulars | Q | R | A |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| To process A a/c | 2800 | 12 | 33600 | By Normal Loss <br> (Note 1) | 140 | 5 | 700 |
| To materials (add) | - | - | 780 | By abnormal loss a/c | 60 | 23 | 1380 |
| To direct wages |  |  | 20,000 | By finished stock | 2600 | 23 | 59800 |
| To production <br> overhead |  |  | 7500 |  |  |  |  |
|  | 2800 |  | 61880 |  | 2800 |  | 61880 |

Normal Loss account

| Particulars | Q | R | A | Particulars | Q | R | A |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| To process A a/c | 300 | 2 | 600 | By abnormal gain a/c | 100 | 2 | 200 |
| To Process B a/c | 140 | 5 | 700 | By Bank a/c- Process <br> A | 200 | 2 | 400 |
|  |  |  | By Bank a/c- process <br> B | 140 | 5 | 700 |  |
|  | 440 |  | 1300 |  | 440 |  | 1300 |

## Normal Loss account

| Particulars | Q | R | A | Particulars | Q | R | A |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| To process A a/c | 300 | 2 | 600 | By abnormal gain a/c | 100 | 2 | 200 |
| To Process B a/c | 140 | 5 | 700 | By Bank a/c- Process <br> A | 200 | 2 | 400 |
|  |  |  | By Bank a/c- process <br> B | 140 | 5 | 700 |  |
|  | 440 |  | 1300 |  | 440 |  | 1300 |

Abnormal Gain account

| Particulars | Q | R | A | Particulars | Q | R | A |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| To Normal loss a/c | 100 | 2 | 200 | By process A a/c | 100 | 12 | 1200 |
| To profit and loss a/c |  |  | 1000 |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  | 100 |  | 1200 |  | 100 |  | 1200 |

Abnormal Loss account

| Particulars | Q | R | A | Particulars | Q | R | A |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| To Process B | 60 | 23 | 1380 | By BANK | 60 | 5 | 300 |

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|  |  |  |  | By profit and loss a/c |  |  | 1080 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |  |  |
|  | 60 |  | 1380 |  | 60 |  | 1380 |

## Working Notes:

## Process A

1. Normal loss is $10 \%$ of input $=10 \%$ of 3,000 units $=300$ units

Scrap value $=300 * 2=$ Rs 600
2. Expected output $(3,000-300) 2700$ units

Actual output 2800 units
100 units
b) Cost per unit= total process cost- scrap value of normal loss/ expected output (Input- Normal Loss)
$=33,000-600 / 3,000-300=32,400 / 2700=\mathrm{Rs} 12$
3. Value of abnormal gain $=100 * 12=$ Rs 1200

## Process- B

4. 5. Normal loss is $5 \%$ of input $=5 \%$ of 2800 units $=140$
1. Scrap value $=140$ units $*$ Rs $5=$ Rs 700
2. Expected output $(2800-140) \quad 2660$ units
3. Actual output 2600 units

Abnormal loss 60 units
Cost per unit= Total process cost- scrap value of normal loss/ expected output (input - normal
loss)
$=61880-700 / 2800-140=61180 / 2660=$ Rs 23
Value of abnormal loss $=60 * 23=$ Rs 1380

Or,
Calculation of passenger km
Passenger-km=
Distance*seating capacity*occupancy rate*no of days *no of trips* no of buses
$=100 \mathrm{~km} * 40$ passengers $* 75 \% * 30$ days $* 2 * 4$
$=7,20,000$ passenger km
One round trip $=2$ one way trips
Operating cost sheet for the month of October

| Particulars |  |  |
| :--- | :--- | :--- |
| Standing charge: | 48,000 |  |
| Wages of drivers, conductors |  |  |

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| Salaries of office staff | 15000 |  |
| :--- | :--- | :--- |
| Honorarium of accountant | 5,000 |  |
| Road tax and insurance | 3,000 |  |
| Deprecation | 52,000 |  |
| Interst and other charges | 40,000 | $1,92,000$ |
| Running and maintenance cost: | 80,000 |  |
| Diesel, oil etc | 16,000 | 96,000 |
| Repairs and maintenance cost |  | $2,88,000$ |
| Total operating cost for the month of October |  |  |

Cost per passenger $-\mathrm{km}=$ Total operating cost/Total passenger-km
$=2,88,000 / 7,20,000=$ Rs 0.40 per passenger-km
Let fare per passenger $\mathrm{km}=\mathrm{x}$
$X=$ Rs $0.40+20 \%$ of $x$
Or, $x-0.20 x=$ Rs 0.40
$\mathrm{X}=$ Rs 0.50
9.

Cost sheet for the year ended $31 / 3 / 2019$

| Opening stock of R/m | 12,500 |  |
| :---: | :---: | :---: |
| Purchase of R/m | 1,10,000 |  |
| Freight on R/M | 5,000 |  |
|  | 1,27,500 |  |
| - Closing stock | 20,000 |  |
| - Material lost by fire | 5,000 |  |
|  | 1,02,500 |  |
| Direct labour | 1,35,000 |  |
| Chargeable expenses | 25,000 |  |
| TOTAL | 1,60,000 |  |
| + op stock of WIP (at prime cost) | 15,000 |  |
|  | 1,75,000 |  |
| - Cl stock of WIP (PC) | 10,000 |  |
| PC |  | 267500 |
| + factory o/h |  | 70,000 |
|  |  | 337500 |
| + op stock of WIP (at FC) |  | 3000 |
|  |  | 340500 |
| - Closing stock of WIP |  | 8000 |
|  |  | 332500 |
| +office exp (2* 30,000) |  | 60,000 |
| Cost of production |  | 392500 |

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| + op stock of FG |  | 60,000 |
| :--- | :--- | :--- |
|  |  | 452500 |
| - Cl stock of fg |  | 130800 |
| Cost of goods sold |  | 321700 |
| + selling exp (1*28,000_- |  | 28,000 |
|  |  | $3,49,700$ |
| +distribution exp |  | 15,000 |
| Cost of sales | 364700 |  |
| Sales |  | $4,00,000$ |
| Profit | $\mathbf{3 5 3 0 0}$ |  |


| Value of cl stock of <br> finished goods | U |
| :--- | :--- |
| Opening stock | 8,000 |
| +produced | 30,000 |
|  | 38000 |
| Sales | 28000 |
| Cl stock | $10,000 \mathrm{U}$ |
| Value of cl stock= $13.08^{*} 10,000 \mathrm{u}\{3,92,500 / 30,000\}$ |  |
| $1,30,800$ |  |
| Units produced: |  |
| Op stock+ produced= sales+ cl stock |  |
| $8000+\mathrm{x}=28,000+10,000$ |  |
| $8000+\mathrm{x}=38,000$ |  |
| $\mathrm{X}=30,000 \mathrm{u}$ |  |

