(CA INTERMEDIATE MOCK TEST MAY 2021)
DATE: 28.02.2021

## PAPER : COSTING

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.

Question No. 1 is compulsory.
Candidates are also required to answer any Four questions from the remaining Five Questions.
In case, any candidate answers extra question(s)/sub-question(s) over and above the required number, then only the requisite number of questions first answered in the answer book shall be valued and subsequent extra question(s) answered shall be ignored.
Wherever necessary, suitable assumptions may be made and disclosed by way of note.

## Answer 1:

(a) Option (i)

Increase in profit when due to change in a manufacturing process there is reduction in joint fixed cost and increase in variable costs.

|  | (Rs.) |
| :--- | ---: |
| Revised Contribution from 12,000 units of A due to $7.5 \%$ increase in <br> Variable Cost $\{12,000$ units $\times($ Rs. $200-$ Rs. 129$)\}$ | $8,52,000$ |
| Revised Contribution from 12,000 units of B due to $7.5 \%$ increase in <br> Variable Cost $\{12,000$ units $\times($ Rs. $120-$ Rs. 64.50$)\}$ | $6,66,000$ |
| Total Revised Contribution | $15,18,000$ |
| Less: Fixed Cost (Rs. $15,00,000-15 \% \times$ Rs. 15,00,000) | $12,75,000$ |
| Revised Profit | $2,43,000$ |
| Less: Existing Profit | $1,80,000$ |
| Increase in Profit | $63,000\}\{\mathbf{~ M}\}$ |

## Option (ii)

Increase in profit when the price of product A increased by $20 \%$ and the price elasticity of its demand would be unity over the range of price.

|  | (Rs.) |
| :--- | ---: |
| Budgeted Revenue from Product A (12,000 units $\times$ Rs. 200) | $24,00,000$ |
| Revised Demand (in units) (Rs. $24,00,000 /$ Rs. 240) | 10,000 |
| Revised Contribution (in Rs. ) $[10,000$ units $\times($ Rs. $240-$ Rs. 120)] | $12,00,000$ |
| Less: Existing Contribution (12,000 units $\times$ Rs. 80) | $9,60,000$ |
| Increase in Profit (Contribution) | $2,40,000\}\{1 \mathbf{~ m}\}$ |

*Note: Since Price Elasticity of Demand is 1, therefore the Revenue in respect of Products will remain same.

## Option (iii)

Increase in profit on the simultaneous introduction of above two options.

| (Rs.) |  |
| :--- | ---: |
| Revised Contribution from Product A [10,000 units $\times($ Rs. $240-$ Rs. <br> $129)]$ | $11,10,000$ |
| Revised Contribution from Product B [12,000 units $\times$ (Rs. $120-$ Rs. <br> $64.50)]$ | $6,66,000$ |
| Total Revised Contribution | $17,76,000$ |
| Less: Revised Fixed Cost | $12,75,000$ |
| Revised Profit | $5,01,000$ |
| Less: Existing Profit | $1,80,000$ |
| Increase in Profit | $3,21,000$ |

A comparison of increase in profit figures under above three options clearly indicates that the option (iii) is the best as it increases the profit of the concern by Rs. 3,21,000.
Note: The budgeted profit / (loss) for 2018 in respect of products A and B should be Rs. 2,10,000 and (Rs. 30,000) respectively instead of Rs. 1,50,000 and Rs. 30,000.

## Workings

1. Contribution per unit of each product:

|  | Product |  |
| :--- | :---: | :---: |
|  | A (Rs.) | B (Rs.) |
| Contribution per unit | 80 | 60 |
| (Sales $\times$ P/V Ratio) | (Rs. $200 \times 40 \%$ ) | (Rs. $120 \times 50 \%$ ) |

2. Number of units to be sold:

Total Contribution - Fixed Cost = Profit
Let $x$ be the number of units of each product sold, therefore: $(80 x+60 x)$

- Rs. $15,00,000=$ Rs. $1,50,000+$ Rs. 30,000

Or $x=12,000$ units
[ $)$

## Answer:

(b) (a)

Working Notes:

| Particulars | For 4 weeks | For 1 week <br> (by dividing by 4) |
| :--- | ---: | ---: |
| Total distance travelled $(40 \mathrm{k} . \mathrm{m} \times$ <br> $2 \times 2$ trips $\times 5$ days $\times 4$ weeks $)$ | $3,200 \mathrm{~km}$ | 800 km |
| Total tonne $\mathrm{km}(40 \mathrm{k} . \mathrm{m} \times 10$ <br> tonnes $\times 2 \times 5$ days $\times 4$ weeks $)$ | 16,000 tonne km | 4,000 tonne km |

(i) Statement showing Operating Cost

| Particulars |  | For 4 weeks | For 1 week (by dividing by 4) |
| :---: | :---: | :---: | :---: |
| A. | Fixed Charges: |  |  |
|  | Drivers' wages (Rs. $2,500 \times 4$ weeks) | 10,000 | 2,500 |
|  | Garage rent (Rs. $800 \times 4$ weeks) | 3,200 | 800 |
|  | Insurance $\{($ Rs. $18,200 \div 52$ weeks $) \times 4$ weeks $\}$ weeks $\}$ | 1,400 | 350 |
|  | Vehicle license \{(Rs. 7,800 $\div 52$ weeks) $\times 4$ weeks $\}$ | 600 | 150 |
|  | Other overheads cost \{(Rs. 41,600 $\div 52$ weeks) $\times 4$ weeks $\}$ | 3,200 | 800 |
|  | Total (A) | 18,400 | 4,600 |
| B. | Running Cost: |  |  |
|  | Cost of diesel $\{(3,200 \div 8 \mathrm{kms}) \times$ Rs. 60$\}$ | 24,000 | 6,000 |
|  | Engine Oil (Rs. $200 \times 4$ weeks)* | 800 | 200 |
|  | Repairs (Rs. $600 \times 4$ weeks)* | 2,400 | 600 |
|  | $\begin{aligned} & \text { Depreciation on vehicle } \\ & \left(\frac{₹ 9,50,000-₹ 1,50,000}{1,60,000 \mathrm{~km}} \times 3,200 \mathrm{~km}\right) \end{aligned}$ | 16,000 | 4,000 |
|  | Depreciation on tyres <br> Depreciation on tyres $\left(\frac{252,500}{25,000 \mathrm{~km}} \times 3,200 \mathrm{~km}\right)$ | 6,720 | 1,680 |
|  | Total (B) | 49,920 | 12,480 |
| C. | Total Cost ( $\mathrm{A}+\mathrm{B}$ ) | 68,320 | 17,080 |

*Cost of engine oil \& repairs may also be treated as fixed cost, as the question relates these with time i.e. in weeks instead of running of vehicle.
(ii) Calculation of vehicle operating cost:


## Answer:

(c) Statement of cost per batch and per order

No. of batch $=600$ units $\div 50$ units $=12$ batches

|  | Particulars | $\begin{array}{r}\text { Cost per } \\ \text { batch (Rs.) }\end{array}$ | $\begin{array}{c}\text { Total Cost } \\ \text { (Rs.) }\end{array}$ |
| :--- | :--- | ---: | ---: |
|  | Direct Material Cost | $5,000.00$ | 60,000 |
|  | Direct Wages | 500.00 | 6,000 |
|  | Oven set-up cost | 750.00 | 9,000 |
|  | Add: Production Overheads | 100.00 | 1,200 |
|  | (20\% of Direct wages) | $6,350.00$ | 76,200 |
|  | Total Production cost | 635.00 | 7,620 |
|  | Add: S\&D and Administration overheads |  |  |
|  | (10\% of Total production cost) |  |  |$)$

(iii) If the order is for 605 cakes, then selling price per cake would be as below:

| Particulars | Total Cost (Rs.) |
| :--- | ---: |
| Direct Material Cost | 60,500 |
| Direct Wages (Rs. $500 \times 13$ batches) | 6,500 |
| Oven set-up cost (Rs. $750 \times 13$ batches) | 9,750 |
| Add: Production Overheads (20\% of Direct wages) | 1,300 |
| Total Production cost | 78,050 |
| Add: S\&D and Administration overheads | 7,805 |
| (10\% of Total production cost) | 85,855 |
| Total Cost | 28,618 |
| Add: Profit $\left(1 / 3^{\text {rd }}\right.$ of total cost) | $1,14,473$ |
| Sales price | 605 units |
| No. of units | 189.21 |
| Selling price per unit (Rs. $1,14,473 \div 605$ units) |  |

## Answer:

## (d) Calculation of :

1. Time saved and wages:

| Workmen | A | B |
| :--- | ---: | ---: |
| Standard time (hrs.) | 40 | 40 |
| Actual time taken (hrs.) | 32 | 30 |
| Time saved (hrs.) | 8 | 10 |
| Wages paid @ Rs. x per hr. (Rs.) | 32 x | 30 x |

2. Bonus Plan:

|  | Halsey | Rowan |
| :---: | :---: | :---: |
| Time saved (hrs.) | 8 | 10 |
| Bonus (Rs.) | $\left[\begin{array}{r}4 \mathrm{x} \\ {\left[\frac{8 \text { hrs } \times \text { Rs. } x}{2}\right.}\end{array}\right]$ |  |

3. Total wages:

Workman A: $32 x+4 x=$ Rs. $36 x$ Workman $B: 30 x+7.5 x=$ Rs. $37.5 x \quad\}\{1 \mathrm{M}\}$
Statement of factory cost of the job

| Workmen |  | A (Rs.) |
| :--- | ---: | ---: |
| Material cost (assumed) | Y (Rs.) | $y$ |
| Wages (shown above) | $36 x$ | 37.5 x |
| Works overhead | 240 | 225 |
| Factory cost (given) | 2,600 | 2,600 |

The above relations can be written as follows: $36 x+y+240=2,600$ (i) $37.5 x+y+225=2,600 \quad$ (ii)
Subtracting (i) from (ii) we get $1.5 x-15=0$
Or, $1.5 x=15$
Or, $x=$ Rs. 10 per hour
On substituting the value of $x$ in (i) we get $y=$ Rs. 2,000
Hence the wage rate per hour is Rs. 10 and the cost of raw material is Rs.
2,000 on the job.

## Answer 2:

(a) (a) Overhead Distribution Statement

|  | Production <br> Departments |  | Service Departments |  |
| :--- | ---: | ---: | ---: | ---: |
|  | Machine <br> Shops | Packing | General <br> Plant | Stores |
| Allocated Overheads: | (Rs.) | (Rs.) | (Rs.) | (Rs.) |
| Indirect labour | 8,000 | 6,000 | 4,000 | 11,000 |
| Maintenance Material | 1,400 | 1,600 | 2,100 | 2,800 |
| Misc. supplies | -- | 2,900 | -- | 16,000 |
| Supervisor's salary | -- | -- | 800 |  |
| Cost \& payroll salary | 12,900 | 10,500 | -- |  |
| Total allocated overheads | $1,03,000$ | -- |  |  |
| Add: Apportioned Overheads <br> (As per Schedule below) | $1,84,350$ | 70,125 | 22,775 | 73,150 |
|  | $1,97,250$ | 80,625 | $1,25,775$ | 87,550 |

## Schedule of Apportionment of Overheads

| Item of Cost | Basis | Production <br> Departments |  | Service Departments |  |
| :--- | :---: | ---: | ---: | ---: | ---: |
|  |  | Machine <br> Shops (Rs.) | Packing <br> (Rs.) | General <br> Plant (Rs.) | Stores <br> (Rs.) |
| Power | HP hours <br> $(7: 1:-: 2)$ | 54,600 | 7,800 | -- | 15,600 |
| Rent | Floor space <br> (5: 2:1:4) | 30,000 | 12,000 | 6,000 | 24,000 |
| Fuel \& Heat | Radiator sec. <br> $(3: 6: 2: 4)$ | 12,000 | 24,000 | 8,000 | 16,000 |
| Insurance | Investment | 7,500 | 2,250 | 750 | 1,500 |


|  | $(10: 3: 1: 2)$ |  |  |  |  |
| :--- | :--- | ---: | ---: | ---: | ---: |
| Taxes | Investment <br> $(10: 3: 1: 2)$ | 5,250 | 1,575 | 525 | 1,050 |
| Depreciation | Investment <br> $(10: 3: 1: 2)$ | 75,000 | 22,500 | 7,500 | 15,000 |
|  |  | $1,84,350$ | 70,125 | 22,775 | 73,150 |

(b) Re-distribution of Overheads of Service Departments to Production Departments:
Let, the total overheads of General Plant = ' $a$ ' and the total overheads of Stores $=$ ' ${ }^{\prime}$ '
$a=1,25,775+0.3 b$
$b=87,550+0.2 a$
Putting the value of ' $b$ ' in equation no. (i)
$a=1,25,775+0.3(87,550+0.2 a)$
Or a $=1,25,775+26,265+0.06 a$
Or 0.94a $=1,52,040 \quad$ Or $a=1,61,745$ (appx.)
Putting the value of $a=1,61,745$ in equation no. (ii) to get the value of 'b'
b $=87,550+0.2 \times 1,61,745=1,19,899$
Secondary Distribution Summary

| Particulars | Total <br> (Rs.) | Machine Shops <br> (Rs.) | Packing (Rs.) |
| :--- | ---: | ---: | ---: |
| Allocated and Apportioned <br> overheads as per Primary <br> distribution | $2,77,875$ | $1,97,250.00$ | $80,625.00$ |
| - General Plant | $1,61,745$ | $80,872.50$ | $48,523.50$ |
|  |  | $\left(1,61,745 \times \frac{5}{10}\right)$ | $\left(1,61,745 \times \frac{3}{10}\right)$ |
| - Stores | $1,19,899$ | $59,949.50$ <br> $(1,19,899 \times 50 \%)$ | $23,979.80$ <br> $(1,19,899 \times 20 \%)$ |
|  |  | $3,38,072.00$ | $1,53,128.30$ |

## Answer:

(b) (i) Calculation of Economic Order Quantity:
$\mathrm{EOQ}=\sqrt{\frac{2 \times A \times O}{C i}}=\sqrt{\frac{2 \times(60,000 \text { packs } \times 12 \text { months }) \times \text { Rs. } 240}{\text { Rs. } 228 \times 10 \%}}$
$=3,893.3$ packs or 3,893 packs.
(ii) Number of orders per year
$\frac{\text { Annual requirements }}{\text { E.O.Q }}=\frac{7,20,000 \text { packs }}{3,893 \text { packs }}=184.9$ or 185 orders a year $\}\{\mathbf{2 ~ M}\}$
(iii) Ordering and storage costs
Ordering and storage costs

|  | (Rs.) |
| :--- | ---: |
| Ordering costs : -185 orders $\times$ Rs. 240 | $44,400.00$ |
| Storage cost :- $1 / 2(3,893$ packs $\times 10 \%$ of Rs. 228$)$ | $44,380.20$ |
| Total cost of ordering $\&$ storage | $88,780.20$ |

(iv) Timing of next order
(a) Day's requirement served by each order.

Number of days requirement $=\frac{\text { No. of working days }}{\text { No. of order in a year }}=\frac{360 \text { days }}{1850 \text { rders }}=1.94$ days
supply.

This implies that each order of 3,893 packs supplies for requirements of $\}$ 1.94 days only.
(b) Days requirement covered by inventory
$=\frac{\text { Units in inventory }}{\text { Economic order quantity }} \times$ (Day's requirement served by an order)
$\therefore \frac{10,033 \text { packs }}{3,893 \text { packs }} \times 1.94$ days $=5$ days requirment
(c) Time interval for placing next order

Inventory left for day's requirement - Average lead time of delivery 5 days -5 days $=0$ days
This means that next order for the replenishment of supplies has to be placed immediately.

## Answer 3:

(a) (i) Calculation of Raw Material inputs during the month:

| Quantities Entering Process | Litres | Quantities Leaving Process | Litres |
| :---: | :---: | :---: | :---: |
| Opening WIP | 800 | Transfer to Finished Goods | 4,200 |
| Raw material input (balancing figure) | 5,360 | Process Losses | 1,800 |
|  |  | Closing WIP | 160 |
|  | 6,160 |  | 6,160 |

(ii) Calculation of Normal Loss and Abnormal Loss/Gain

| (ii) Calculation of Normal Loss and Abnormal Loss/Gain | Litres |
| :--- | ---: |
| Total process losses for month | 1,800 |
| Normal Loss (10\% input) | 536 |
| Abnormal Loss (balancing figure) | 1,264 |

(iii) Calculation of values of Raw Material, Labour and Overheads added to the process:

|  | Material | Labour | Overheads |
| :---: | :---: | :---: | :---: |
| Cost per equivalent unit | Rs. 23.00 | Rs. 7.00 | Rs. 9.00 |
| Equivalent units (litre) (refer the working note) | 4,824 | 4,952 | 5,016 |
| Cost of equivalent units | Rs. 1,10,952 | Rs. 34,664 | Rs. 45,144 |
| Add: Scrap value of normal loss ( 536 units $\times$ Rs. 15) | Rs. 8,040 | -- | -- |
| Total value added | Rs. 1,18,992 | Rs. 34,664 | Rs. 45,144 |

## Workings:

Statement of Equivalent Units (litre):

| Input Details | Units | Output details | Units | Equivalent Production |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Material |  | Labour |  | Overheads |  |
|  |  |  |  | Units | (\%) | Units | (\%) | Units | (\%) |
| Opening WIP | 800 | Units completed: |  |  |  |  |  |  |  |
| Units introduced | 5,360 | - Opening WIP | 800 | -- | -- | 240 | 30 | 320 | 40 |
|  |  | - Fresh inputs | 3,400 | 3,400 | 100 | 3,400 | 100 | 3,400 | 100 |
|  |  | Normal loss | 536 | -- | -- | -- | -- | -- |  |
|  |  | Abnormal loss | 1,264 | 1,264 | 100 | 1,264 | 100 | 1,264 | 100 |
|  |  | Closing WIP | 160 | 160 | 100 | 48 | 30 | 32 | 20 |
|  | 6,160 |  | 6,160 | 4,824 |  | 4,952 |  | 5,016 |  |

(iv) Process Account for Month

|  | Litres | Amount <br> (Rs.) |  | Litres | Amount <br> (Rs.) |
| :--- | ---: | ---: | :--- | ---: | ---: |
| To Opening WIP | 800 | 26,640 | By Finished goods | 4,200 | $1,63,800$ |
| To Raw Materials | 5,360 | $1,18,992$ | By Normal loss | 536 | 8,040 |
| To Wages | -- | 34,664 | By Abnormal loss | 1,264 | 49,296 |
| To Overheads | -- | 45,144 | By Closing WIP | 160 | 4,304 |
|  | 6,160 | $2,25,440$ |  | 6,160 | $2,25,440$ |

## Answer:

(b) In case of escalation clause in a contract, a contractor is paid for the any increase in price of materials and rate of labours which are beyond the control of the contractor. Any increase in the cost due to inefficiencies in usage of the materials and labours are not admissible. Thus any increase in cost due to usage in excess of standard quantity or hours arenot paid.
(i) Statement showing Additional claim due to Escalation clause.


Statement showing Final Contract Price

|  | (Rs.) | (Rs.) |
| :--- | ---: | ---: |
| Agreed contract price |  | $1,50,00,000$ |
| Add: Agreed escalation claim: | $1,60,000$ |  |
| $\quad$ Material Cost | $3,80,000$ | $5,40,000$ |
| Labour Cost |  | $1,55,40,000$ |
| Final Contract Price | 22 M \} |  |

(ii)

Contract Account


## Answer 4:

(a) Material Price Variance $=$ Actual Quantity (Std. Price - Actual Price)
$X=12,500$ units (Rs. $40-$ Rs. 44 ) $=50,000(A)$
$Y=18,000$ units (Rs. $30-$ Rs. 28) $=36,000(F)$
$Z=88,500$ units (Rs. $10-$ Rs. 12) $=1,77,000(A)$
Material Usage Variance $=$ Std. Price (Std. Qty - Actual Qty.)

$$
\begin{aligned}
& \mathrm{X}=\text { Rs. } 40(6,000 \times 2-12,500)=20,000(\mathrm{~A}) \\
& \mathrm{Y}=\text { Rs. } 30(6,000 \times 3-18,000)=\mathrm{Nil} \\
& \mathrm{Z}=\text { Rs. } 10(6,000 \times 15-88,500)=15,000(\mathrm{~F}) 5,000(\mathrm{~A})
\end{aligned}
$$

$$
\text { Material Mix Variance }=\text { Std. Price (Revised Std. Qty. - Actual Qty.) }
$$

$X=\operatorname{Rs} .40\left(\frac{1,19,000 \times 2}{20}-12,500\right)=24,000(\mathrm{~A})$
$\mathrm{Y}=\operatorname{Rs} .30\left(\frac{1,19,000 \times 3}{20}-18,000\right)=4,500(\mathrm{~A})$
$Z=$ Rs. $10\left(\frac{1,19,000 \times 15}{20}-88,500\right)=\underline{7,500(F)}$ $21,000(A)$

Material Yield Variance $=$ Std. Price (Std. Qty. - Revised Std. Qty.)

## Answer:

(b) (i) Preparation of Production Budget (in units)
$\left.\begin{array}{|l|r|r|r|r|}\hline & \text { October } & \text { November } & \text { December } & \text { January } \\ \hline \text { Demand for the month (Nos.) } & 40,000 & 35,000 & 45,000 & 60,000 \\ \hline \text { Add: } 20 \% \text { of next month's demand } & 7,000 & 9,000 & 12,000 & 13,000 \\ \hline \text { Less: Opening Stock } & (9,500) & (7,000) & (9,000) & (12,000) \\ \hline \text { Vehicles to be produced } & \mathbf{3 7 , 5 0 0} & \mathbf{3 7 , 0 0 0} & \mathbf{4 8 , 0 0 0} & \mathbf{6 1 , 0 0 0}\end{array}\right\}$
(ii) Preparation of Purchase budget forPart-X

|  | October | November | December |
| :---: | :---: | :---: | :---: |
| Production for the month (Nos.) | 37,500 | 37,000 | 48,000 |
| Add: 40\% of next month's production | $\begin{array}{r} 14,800 \\ \text { (40\% of } 37,000 \text { ) } \end{array}$ | $\begin{array}{r} 19,200 \\ (40 \% \text { of } 48,000) \end{array}$ | $\begin{array}{r} 24,400 \\ (40 \% \text { of } 61,000) \end{array}$ |
|  | 52,300 | 56,200 | 72,400 |
| No. of units required for production | $\begin{array}{r} 2,09,200 \\ (52300 \times 4 \text { units }) \\ \hline \end{array}$ | $\begin{array}{r} 2,24,800 \\ (56200 \times 4 \text { units }) \\ \hline \end{array}$ | $\begin{array}{r} 2,89,600 \\ \hline(72,400 \times 4 \text { units }) \end{array}$ |
| Less: Opening Stock | $(48,000)$ | $\begin{array}{r} (59,200) \\ (14800 \times 4 \text { units }) \end{array}$ | $\begin{array}{r} (76,800) \\ (19200 \times 4 \text { units }) \end{array}$ |
| No. of units to be purchased | 1,61,200 | 1,65,600 | 2,12,800 |

$$
\begin{aligned}
& X=R s .40\left(6,000 \times 2 \cdot \frac{1,19,000 \times 2}{20}\right)=4,000(F) \\
& Y=\operatorname{Rs} .30\left(6,000 \times 3-\frac{1,19,000 \times 3}{20}\right)=4,500(F) \\
& Z=\text { Rs. } 10\left(6,000 \times 15-\frac{1,19,000 \times 15}{20}\right)=7,500 \text { (F) } 16,000(F) \\
& \left.\begin{array}{rl}
\text { Labour Rate Variance } & =\text { Actual Hours (Std. Rate }- \text { Actual Rate) } \\
& =2,500 \text { hours (Rs. } 55-\text { Rs. } 58 \text { ) }=7,500(A)
\end{array}\right\}\{1 \mathrm{M}\} \\
& \text { Labour Efficiency Variance }=\text { Std. Rate (Std. Hours - Actual Hours) } \\
& =\text { Rs. } 55(6,000 \times 3-17,500)=27,500(F)\}\{1 \mathrm{M}\}
\end{aligned}
$$

(iii) Budgeted Gross Profit for the Quarter October to December
$\left.\begin{array}{|l|r|r|r|r|}\hline & \text { October } & \text { November } & \text { December } & \text { Total } \\ \hline \text { Sales in nos. } & 40,000 & 35,000 & 45,000 & 1,20,000 \\ \hline \text { Net Selling Price per unit* } & 7,28,535 & 7,28,535 & 7,28,535 & \\ \hline \text { Sales Revenue (Rs. in lakh) } & 2,91,414 & 2,54,987.25 & 3,27,840.75 & 8,74,242 \\ \hline \begin{array}{l}\text { Less: Cost of Sales (Rs. in lakh) } \\ \text { (Sales unit } \times \text { Cost per unit) }\end{array} & 2,28,560 & 1,99,990.00 & 2,57,130.00 & 6,85,680 \\ \hline \text { Gross Profit (Rs. in lakh) } & \mathbf{6 2 , 8 5 4} & \mathbf{5 4 , 9 9 7 . 2 5} & \mathbf{7 0 , 7 1 0 . 7 5} & \mathbf{1 , 8 8 , 5 6 2}\end{array}\right\} 1 \mathbf{M}$ Each $\}$

* Net Selling price unit $=$ Rs. 8,57,100-15\% commission on Rs. 8,57,100
$=$ Rs. $7,28,535$.


## Answer 5:


(ii) Statement reconciling the profit as per costing profit and loss account with the profit as per financial accounts

| Particulars | Amount (Rs.) | Amount (Rs.) | $\underbrace{\{1 \mathrm{M} \text { Each }\}}_{\{3 / 4 \mathrm{M}\}}$ |
| :---: | :---: | :---: | :---: |
| Profit as per cost records |  | 2,92,875 |  |
| Add: Overheads over-absorbed: |  |  |  |
| - Works overheads (Rs. 4,31,600 - Rs. 4,26,000) | 5,600 |  |  |
| - Administration OH (Rs. 1,60,000 - Rs. 1,50,000) | 10,000 |  |  |
| - Selling and Distribution (Rs. 1,80,000 - Rs. 1,65,000) | 15,000 | 30,600 |  |
| ```Less: Closing stock overvalued (Rs. 1,68,475 - Rs 1,67,500)``` |  | (975) |  |
| Profit as per financial accounts |  | 3,22,500 |  |

*It is assumed that the number of units Produced
$=$ Number of units sold + Finished stock $=30,000+2,000=32,000$ units.

## Answer:

(b) (i) Calculation of cost driver rate:

| Cost pool | Budgeted overheads <br> (Rs.) | Cost driver | Cost driver <br> rate (Rs.) |
| :--- | ---: | ---: | ---: |
| Material procurement | $18,42,000$ | 1,200 | $1,535.00$ |
| Material handling | $8,50,000$ | 1,240 | 685.48 |
| Maintenance | $24,56,000$ | 17,550 | 139.94 |


| Set-up | $9,12,000$ | 1,450 | 628.97 |
| :--- | ---: | ---: | ---: |
| Quality control | $4,42,000$ | 1,820 | 242.86 |

(ii) Calculation of cost for the batch:

| Particulars | Amount <br> (Rs.) | Amount <br> (Rs.) |
| :--- | ---: | ---: |
| Material cost |  | $24,62,000.00$ |
| Wages |  | $4,68,500.00$ |
| Overheads: | $85,960.00$ |  |
| - Material procurement (Rs. 1,535 $\times 56$ orders) | $57,580.32$ |  |
| - Material handling (Rs. 685.48 $\times 84$ movements) | $1,98,714.80$ |  |
| - Maintenance (Rs. 139.94 $\times 1,420$ hours) | $37,738.20$ |  |
| - Set-up (Rs. 628.97 $\times 60$ set-ups) | $4,371.48$ | $3,84,364.80$ |
| - Quality control (Rs. 242.86 $\times 18$ inspections) |  | $33,14,864.80$ |
| Total Cost |  | 7,600 |
| No. of units |  | 436.17 |
| Cost per units |  |  |

## Answer 6:

(a) To exercise control over cost, following steps are followed:
(i) Determination of pre-determined standard or results: Standard cost or performance targets for a cost object or a cost centre is set before initiation of production or service activity. These are desired cost or result that need to be achieved.
(ii) Measurement of actual performance: Actual cost or result of the cost object or cost centre is measured. Performance should be measured in the same manner in which the targets are set i.e. if the targets are set up operation-wise, and then the actual costs should also be collected and measured operation-wise to have a common basis for comparison.
(iii) Comparison of actual performance with set standard or target: The actual performance so measured is compared against the set standard and desired target. Any deviation (variance) between the two is noted and reported to the appropriate person or authority.
(iv) Analysis of variance and action: The variance in results so noted are further analysed to know the reasons for variance and appropriate action is taken to ensure compliance in future. If necessary, the standards are further amended to take developments into account.

## Answer:

(b)

|  | Bill of Materials |  | Material Requisition Note |
| :--- | :--- | :--- | :--- |
| 1. | It is the document prepared by the <br> engineering or planning department. | 1. | It is prepared by the production <br> or other consuming department. |
| 2. | It is a complete schedule of <br> component parts and raw materials <br> required for a particular job or work <br> order. | 2. | It is a document authorizing <br> Store- keeper to issue materials <br> to the consuming department. |
| 3. | It often serves the purpose of a <br> material requisition as it shows the <br> complete schedule of materials <br> required for a particular job i.e. it <br> can replace material requisition. | . | It cannot replace a bill of <br> materials. |
| 4. | It can be used for the purpose of <br> quotations. | 4. | It is useful in arriving historical <br> cost only. |
| 5. | It helps in keeping a quantitative <br> control on materials drawn through <br> material requisition. | 5. | It shows the material actually <br> drawn from stores. |

## Answer:

(c) Financial expenses causing differences in Financial and Cost Accounts:
(i) Interest on loans or bank mortgages.
(ii) Expenses and discounts on issue of shares, debentures etc.
(iii) Other capital losses i.e., loss by fire not covered by insurance etc.
\{Any $5=5$
(iv) Losses on the sales of fixed assets and investments.
(v) Goodwill written off.
(vi) Preliminary expenses written off.
(vii) Income tax, donations, subscriptions.
(viii) Expenses of the company's share transfer office, if any.

## Answer:

(d) Standing Charges: These are the fixed costs that remain constant irrespective of the distance travelled. These costs include the following-

- Insurance
- License fees
- Salary to Driver, Conductor, Cleaners, etc. if paid on monthly basis
- Garage costs, including garage rent
- Depreciation (if related to efflux of time)
- Taxes
- Administration expenses, etc.

Running Charges: These costs are generally associated with the distance travelled. $\}\{\mathbf{1} \mathbf{M}\}$ These costs include the following-

- Petrol and Diesel
- Lubricant oils,
- Wages to Driver, Conductor, Cleaners, etc. if it is related to operations
- Depreciation (if related to activity)
\{1/2 M Each $\}$
- Any other variable costs identified.

