

(GI-7, VI-VDI-SI-3)

DATE: 01.04.2022

MAXIMUM MARKS: 100

TIMING: 3¼ Hours

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)

(i) Reorder Quantity (ROQ)	=	1,196 kg. (Refer to working note)
(ii) Reorder level (ROL)	=	Maximum usage × Maximum re-order period
	=	450 kg. × 8 weeks = 3,600 kg.
(iii) Maximum level	=	ROL + ROQ – (Min. usage × Min. re-order period)
	=	3,600 kg. + 1,196 kg. – (100 kg. × 4 weeks)
	=	4,396 kg.
(iv) Minimum level	=	ROL – (Normal usage × Normal re-order period)
	=	3,600 kg. – (275 kg. × 6 weeks)
	=	1,950 kg.
(v) Average stock level	=	$\frac{1}{2}$ (Maximum level + Minimum level)
	=	$\frac{1}{2}$ (4,396 kg. + 1,950 kg.) = 3,173 kg.
		OR
	=	Minimum level + $\frac{1}{2}$ ROQ
	=	1,950 kg. + $\frac{1}{2}$ × 1,196 kg. = 2,548 kg.

{Each Point 1 M}

Working Note:

Annual consumption of raw material (A) = (275 kg. × 52 weeks) = 14,300 kg.

Cost of placing an order (O) = Rs. 100

Carrying cost per kg. per annum (c × i) = Rs. 10 × 20% = Rs. 2

$$\begin{aligned} \text{Economic order quantity (EOQ)} &= \sqrt{\frac{2AO}{C \times i}} \\ &= \sqrt{\frac{2 \times 14,300 \text{ kgs.} \times \text{Rs. } 100}{\text{Rs. } 2}} = 1,196 \text{ Kg. (Approx)} \end{aligned}$$

Answer:

(b) Labour Turnover Rate (Replacement method) = $\frac{\text{No. of workers replaced}}{\text{Average No. of workers}}$

Or, $\frac{8}{100} = \frac{36}{\text{Average No. of workers}}$

Or, Average No. of workers = **450 }{1/2 M}**

Labour Turnover Rate (Separation method) = $\frac{\text{No. of workers separated}}{\text{Average No. of workers}}$

Or, $\frac{6}{100} = \frac{\text{No. of workers separated}}{450}$

Or, No. of workers separated = **27 }{1/2 M}**

Labour Turnover Rate (Flux Method) = $\frac{\text{No. of Separations} + \text{No. of accession Joining}}{\text{Average No. of workers}}$

Or, $\frac{14}{100} = \frac{27 + \text{No. of accessions(Joining)}}{450}$

Or, 100 (27 + No. of Accessions) = 6,300

Or, No. of Accessions = 36

(i) The No. of workers recruited and Joined = 36 }{2 M}

(ii) The no. of workers left and discharged = 27 }{2 M}

Answer:

(c) Journal entries are as follows:

		Dr.	Cr.
		(Rs.)	(Rs.)
(i)	Stores Ledger Control A/c.....	Dr. 27,000	
	To Cost Ledger Control A/c		27,000
(ii)	Work-in-Process Control A/c.....	Dr. 6,000	
	To Manufacturing Overhead Control A/c		6,000
(iii)	Cost of Sales A/c.....	Dr. 4,000	
	To Selling & Dist. Overhead Control A/c		4,000
(iv)	(1) Wage Control A/c.....	Dr. 8,000	
	To Cost Ledger Control A/c		8,000
	(2) Manufacturing Overhead Control A/c.....	Dr. 8,000	
	To Wages Control A/c		8,000
OR			
	Manufacturing Overhead Control A/c.....	Dr. 8,000	
	To Cost Ledger Control A/c		8,000
(v)	Stores Ledger Control A/c	Dr. 9,000	
	To Work-in-Process Control A/c		9,000

*Cost Ledger Control A/c is also known as General Ledger Control A/c

{Each Entry 1 M}

Answer:

(d) Statement of Cost

	First three months (Rs.)	Remaining nine months (Rs.)	Total (Rs.)

	37,500 units	1,68,750 units	2,06,250 units
Direct material	18,75,000	84,37,500	1,03,12,500
Direct employee cost	6,00,000	27,00,000	33,00,000
Indirect - variable expenses	3,75,000	16,87,500	20,62,500
Indirect – fixed expenses	8,12,500	24,37,500	32,50,000
Indirect - semi-variable expenses			
- For first three months @ Rs. 40,000 p.m.	1,20,000		1,20,000
- For remaining nine months @ Rs. 70,000* p.m.		6,30,000	6,30,000
Total cost	37,82,500	1,58,92,500	1,96,75,000
Desired profit	-	-	10,00,000
Sales value	-	-	2,06,75,000
Average selling price per unit			100.24

{Each bold ¼ M}

* Rs. 40,000 for 50% capacity + Rs. 15,000 for 20% increase in capacity + Rs. 15,000 for 5% increase in capacity (because cost is increased for every 20% increase in capacity or part thereof) } {1/4 M}

Answer 2:

(a) (i) Statement showing the allocation of support department costs to the sales departments (using the Direct Method)

Particulars	Basis of allocation	Sales department		Support department	
		Corporate sales (Rs.)	Consumer sales (Rs.)	Administrative (Rs.)	Information systems (Rs.)
Cost incurred		12,97,751	6,36,818	94,510	3,04,720
Re-allocation of cost of administrative department	Number of employees (6:4:-:-)	56,706	37,804	(94,510)	---
Re-allocation of costs of information systems department	Processing time (6:5:-:-)	1,66,211	1,38,509	---	(3,04,720)
Total		15,20,668	8,13,131		

{Each bold 1/4 M}

(ii) Ranking of support departments based on percentage of their services rendered to other support departments

➤ Administration support department provides 23.077% $\left(\frac{21 \times 100}{42 + 28 + 21} \right)$ of its services to information system support department. Thus 23.077% of Rs. 94,510 = Rs. 21,810. } {1/2 M}

➤ Information system support department provides 8.33% $\left(\frac{400}{2,400 + 2,000 + 400} \times 100 \right)$ of its services to Administration support department. Thus 8.33% of Rs.3,04,720 = Rs. 25,383. } {1/2 M}

**Statement showing allocation of support costs
(By using step-down allocation method)**

Particulars	Basis of allocation	Sales department		Support department	
		Corporate sales	Consumer sales	Administrative	Information systems.
		(Rs.)	(Rs.)	(Rs.)	(Rs.)
Cost incurred		12,97,751	6,36,818	94,510	3,04,720
Re-allocation of cost of administrative department	Number of employees (6:4::3)	43,620	29,080	(94,510)	21,810
Re-allocation of costs of information systems department	Processing time (6:5:-:-)	1,78,107	1,48,423		(3,26,530)
Total		15,19,478	8,14,321		

(Each Bold ¼ M)

(iii) An alternative ranking is based on the rupee amount of services rendered to other service departments, using the rupee figures obtained under requirement (ii) This approach would use the following sequence of ranking.

- Allocation of information systems overheads as first (Rs.25,383 provided to administrative).
- Allocated administrative overheads as second (Rs.21,810 provided to information systems). **{1/4 M}**

(iv) **Working notes:**

(1) Percentage of services provided by each service department to other service department and sales departments.

Particulars	Service departments		Sale departments	
	Administrative	Information system	Corporate Sales	Consumer Sales
Administrative	–	23.08%	46.15%	30.77%
Information systems	8.33%	–	50%	41.67%

(Each Bold ¼ M)

(2) **Total cost of the support department:** (By using simultaneous equation method).
Let AD and IS be the total costs of support departments Administrative and Information systems respectively. These costs can be determined by using the following simultaneous equations:

	AD	=	94,510 + 0.0833 IS
	IS	=	3,04,720 + 0.2308 AD
Or,	AD	=	94,510 + 0.0833 {3,04,720 + 0.2308 AD}
Or,	AD	=	94,510 + 25,383 + 0.01922 AD
Or,	0.98077AD	=	1,19,893
Or,	AD	=	Rs.1,22,243 {1/4 M}
and	IS	=	Rs.3,32,934 {1/4 M}

Statement showing the allocation of support department costs to the sales departments (Using reciprocal allocation method)

Particulars	Sales department	
	Corporate sales	Consumer sales

	(Rs.)	(Rs.)
Costs incurred	12,97,751	6,36,818
Re-allocation of cost administrative department (46.16% and 30.77% of Rs. 1,22,243)	56,427	37,614
Re-allocation of costs of information systems department (50% and 41.67% of Rs. 3,32,934)	1,66,467	1,38,734
Total	15,20,645	8,13,166

{Each bold ¼ M}

Answer:

(b) Calculation of cost per unit:

Particulars		Units	(Rs.)
Listed Price of Materials		5,000	2,50,000
Less: Trade discount @ 10% on invoice price			(25,000)
			2,25,000
Add: CGST @ 6% of Rs. 2,25,000			13,500
Add: SGST @ 6% of Rs. 2,25,000			13,500
			2,52,000
Add: Toll Tax			5,000
Freight and Insurance			17,000
Commission and Brokerage Paid			10,000
Add: Cost of returnable containers:			
Amount deposited	Rs. 30,000		
Less: Amount refunded	Rs. 20,000		10,000
			2,94,000
Add: Other Expenses @ 2% of Total Cost $\left(\frac{\text{Rs. } 2,94,000}{98} \times 2 \right)$			6,000
Total cost of material			3,00,000
Less: Shortage material due to normal reasons @ 20%		1,000	-
Total cost of material of good units		4,000	3,00,000
Cost per unit (Rs. 3,00,000/4,000 units)			75

{Each bold ¼ M}

Note:

- GST is payable on net price i.e., listed price less discount.
- Cash discount is treated as interest and finance charges; hence it is ignored.
- Demurrage is penalty imposed by the transporter for delay in unloading or off-loading of materials. It is an abnormal cost and not included.
- Shortage due to normal reasons should not be deducted from cost to ascertain total cost of good units.

{Each point ¼ M}

Answer 3:

(a) Working Notes:

- Overhead recovery rate per direct labour hour:
 Budgeted factory overheads : Rs. 6,75,000
 Budgeted direct labour hours : 4,50,000

$$\begin{aligned} \text{Overhead recovery rate} &= \frac{\text{Budgeted factory overheads}}{\text{Budgeted direct labour hours}} \\ &= \frac{\text{Rs. 6,75,000}}{4,50,000 \text{ hours}} \\ &= \text{Rs. 1.50 per direct labour } \{1/2 \text{ M}\} \end{aligned}$$

(ii) Direct wage rate per hour:

Direct labour cost of WIP : Rs. 3,000
(on 31st October 2021)

Direct labour hours of WIP : 1,200 hours

$$\begin{aligned} \text{Direct wage rate per hour} &= \frac{\text{Direct labour cost on WIP}}{\text{Direct labour hours on WIP}} \\ &= \frac{\text{Rs. 300}}{1,200 \text{ hours}} = \text{Rs. 2.50 } \{1/2 \text{ M}\} \end{aligned}$$

(iii) Total direct wages charged to production:
Total direct labour hours spent on production × Direct wage rate per hour
= 28,200 hours × Rs. 2.50 = Rs. 70,500 **{1/2 M}**

(a) **Material purchased during October, 2021**

	(Rs.)
Payment made to creditors	1,05,000
Add: Closing balance in the account of creditors for purchase	15,000
Less: Opening balance	(30,000)
Material Purchased	90,000

(Each Bold 1/10 M)

(b) **Cost of finished goods in October, 2021**

	(Rs.)
Cost of goods sold during the month	1,95,000
Add: Closing finished goods inventory	66,000
Less: Opening finished goods inventory	(75,000)
Cost of goods completed during the month	1,86,000

(Each Bold 1/10 M)

(c) **Overhead applied to production in October, 2021**

$$= 28,200 \text{ hours} \times \text{Rs. 1.50} = \text{Rs. 42,300 } \{1/10 \text{ M}\}$$

(d) **Balance of Work-in-Process on 31st October, 2021**

	(Rs.)
Direct material cost	6,000
Direct labour cost	3,000
Overheads (Rs. 1.50 × 1,200 hours)	1,800
	10,800

(Each bold 1/10 M)

(e) **Direct material consumed during October, 2021** = Rs. 78,000 **{1/10 M}**
(Refer to following Accounts)

Work in Process Control A/c

	(Rs.)		(Rs.)
To Balance b/d	6,000	By Finished goods control A/c [Refer (b) above]	1,86,000
To Wages Control A/c [Refer working note (iii)]	70,500	By Balance c/d [Refer (d) above]	10,800
To Factory OH Control A/c [Refer (c) above]	42,300		
To Material consumed (Balancing fig.)	78,000		
	1,96,800		1,96,800

(Each Bold 1/2 M)

- (f) **Balance of Stores Control Account on 31st October, 2021 = Rs. 66,000**
(Refer to following Account) **}(1/10 M)**

Stores Ledger Control Account

	(Rs.)		(Rs.)
To Balance b/d	54,000	By Work-in-process Control A/c [Refer (e) above]	78,000
To Payables(Creditors) A/c [Refer (a) above}	90,000	By Balance c/d (Balancing fig.)	66,000
	1,44,000		1,44,000

(Each bold ½ M)

- (g) **Over-absorbed or under-absorbed overheads for October, 2021:**
Balance in Factory Overhead Account below showing that Rs. 2,700 is under-absorbed. **}(1/2 M)**

Factory Overhead Account

	(Rs.)		(Rs.)
To Bank A/c	45,000	By Work-in-process Control A/c (Factory OH applied)	42,300
		By Costing P/L A/c (Under-absorbed)	2,700
	45,000		45,000

(Each bold 1/2 M)

Answer:

(b) Workings:

- Normal working hours in a month = (Daily working hours – lunch break) × no. of days
= (8 hours – 0.5 hours) × 26 days = 195 hours **}(1/4 M)**
- Hours worked by Mr.Z = No. of normal days worked + Overtime + holiday/ Sunday worked
= (21 days × 7.5 hours) + (9.5 hours + 8.5 hours) + (5 hours + 6 hours)
= 157.5 hours + 18 hours + 11 hours = 186.50 hours. **}(1/4 M)**

(i) Calculation of earnings per day

Particulars	Amount (Rs.)
Basic salary (Rs. 1,000 × 26 days)	26,000
Dearness allowance (20% of basic salary)	5,200
	31,200
House rent allowance (16% of basic salary)	4,160
Employer’s contribution to Provident fund (12% × Rs. 31,200)	3,744
Employer’s contribution to Pension fund (7% × Rs. 31,200)	2,184
	41,288
No. of working days in a month (days)	26
Rate per day	1,588
Transport allowance per day	50
Earnings per day	1,638

(Each bold ½ M)

(ii) Calculation of effective wage rate per hour of Mr. Z:

Particulars	Amount (Rs.)
Basic salary (Rs. 1,000 × 26 days)	26,000
Additional basic salary for Sunday & holiday (Rs. 1,000 × 2 days)	2,000
Dearness allowance (20% of basic salary)	5,600
	33,600
House rent allowance (16% of basic salary)	4,480
Transport allowance (Rs. 50 × 23 days)	1,150
Overtime allowance (Rs. 160 × 2 × 2 hours)*	640
Employer’s contribution to Provident fund (12% × Rs. 33,600)	4,032
Employer’s contribution to Pension fund (7% × Rs. 33,600)	2,352
Total monthly wages	46,254
Hours worked by Mr. Z (hours)	186.5
Effective wage rate per hour	248

(Each bold ½ M)

***(Daily Basic + DA) ÷ 7.5 hours**
 = (1,000+200) ÷ 7.5 = Rs. 160 per hour **}(1/4 M)**

(iii) Calculation of wages to be charged to Job no. HT200

= Rs. 248 × 100 hours = Rs. 24,800 **}(1/4 M)**

Answer 4:

(a) (i)

Material Variances

	Budget			Std. for actual			Actual		
	Quantity	Price (Rs.)	Amount (Rs.)	Quantity	Price (Rs.)	Amount (Rs.)	Quantity	Price (Rs.)	Amount (Rs.)
Material	0.5	60	30	5,000	60	3,00,000	5,700	58	3,30,600

(Each bold 1/10 M)

Material Cost Variance = **(SQ×SP – AQ ×AP)**
 3,00,000 – 3,30,600 = Rs. 30,600(A) **}(1 M)**
Material Price Variance = **(SP – AP) AQ**
 (60 -58) 5,700 = Rs. 11,400 (F) **}(1 M)**
Material Usage Variance = **(SQ – AQ) SP**
 (5,000 – 5,700) 60 = Rs. 42,000 (A) **}(1 M)**

(ii) **Variable Overheads variances**

Variable overhead cost Variance = (Standard variable overhead – Actual Variable Overhead)

Standard Variable Overheads: 10,000 units × 10 = 1,00,000

(1,00,000 – 1,12,200) = Rs. 12,200(A) **}{1 M}**

Variable overhead Efficiency Variance = (Standard Hours – Actual Hours) × Standard Rate per Hour

Let Actual Hours be 'X'

(10,000 – X) × 10 = 2,000 (A)

1,00,000 – 10 X = -2,000

X = 1,02,000 ÷ 10

Therefore, Actual Hours (X) = 10,200

Variable overhead Expenditure Variance = (Variable Overhead at Actual Hours - Actual Variable Overheads)

10,200 × 10 – 1,12,200 = Rs. 10,200 (A) **}{1 M}**

(iii) **Labour variances**

	Budget			Std. for actual			Actual		
	Hours	Rate (Rs.)	Amount (Rs.)	Hours	Rate (Rs.)	Amount (Rs.)	Hours	Rate (Rs.)	Amount (Rs.)
Labour	1	20	20	10,000	20	2,00,000	10,200	22	2,24,400

(Each bold 1/10 M)

Actual Rate = Rs. 2,24,400 ÷ 10,200 hours = Rs. 22 **}{1/5 M}**

Labour Cost Variance = (SH × SR) – (AH × AR)

10,000 × 20 – 10,200 × 22 = Rs. 24,400 (A) **}{1 M}**

Labour Rate Variance = (SR – AR) × AH

(20 – 22) × 10,200 = Rs. 20,400 (A) **}{1 M}**

Labour Efficiency Variance = (SH – AH) × SR

(10,000 – 10,200) × 20 = Rs. 4,000 (A) **}{1 M}**

Answer:

(b) Budgeted Production 30,000 hours ÷ 6 hours per unit = 5,000 units **}{1 M}**

Budgeted Fixed Overhead Rate = Rs. 90,00,000 ÷ 5,000 units = Rs. 1,800 per unit **}{1/2 M}**

= Rs. 90,00,000 ÷ 30,000 hours = Rs. 300 per hour. **}{1/2 M}**

(i) Material Cost Variance = (Std. Qty. × Std. Price) – (Actual Qty. × Actual Price)

= (4,800 units × 10 kg. × Rs. 200) - Rs. 1,05,00,000

= Rs. 96,00,000 – Rs. 1,05,00,000

= Rs. 9,00,000 (A) **}{2 M}**

(ii) Labour Cost Variance = (Std. Hours × Std. Rate) – (Actual Hours × Actual rate)

= (4,800 units × 6 hours × Rs. 110) – Rs. 31,00,000

= Rs. 31,68,000 – Rs. 31,00,000

= Rs. 68,000 (F) **}{2 M}**

(iii) Fixed Overhead Cost Variance = (Budgeted Rate × Actual Qty) – Actual Overhead

= (Rs. 1,800 × 4,800 units) – Rs. 94,00,000

= Rs. 7,60,000 (A)

OR = (Budgeted Rate × Std. Hours) – Actual Overhead

= (Rs. 300 × 4,800 units × 6 hours) – Rs. 94,00,000

= Rs. 7,60,000 (A) **}{2 M}**

(iv) Variable Overhead Cost Variance = (Std. Rate × Std. Hours) – Actual Overhead
 = (4,800 units × 6 hours × Rs. 200) - Rs. 58,60,000
 = Rs. 57,60,000 - Rs. 58,60,000
 = Rs. 1,00,000 (A) **{2 M}**

Answer 5:

(a) (i) Optimal order quantity i.e. **E.O.Q.**

$$= \sqrt{\frac{2 \times 48,000 \times 1,350}{15}} = \sqrt{86,40,000} = 2,939 \text{ units } \mathbf{\{1 M\}}$$

Relevant Cost of this order quantity	Rs.
Ordering cost = $\frac{48,000}{2,939} = 16.33$, say 17 orders at Rs. 1,350	22,950.00
Carrying Cost = $\frac{1}{2} \times 2,939 \times 15$	22,042.50
Relevant cost	<u>44,992.50</u> }{2 M}

(ii) Revised EOQ = $\sqrt{\frac{2 \times 48,000 \times 800}{15}} = 2,263 \text{ units } \mathbf{\{1 M\}}$

Relevant Cost of this order quantity	Rs.
Ordering cost = $\frac{48,000}{2,263} = 21.21$, say 22 orders at Rs. 800	17,600.00
Carrying cost = $\frac{1}{2} \times 2,263 \times 15$	16,972.50
Relevant cost	<u>34,572.50</u> }{2 M}

Differential cost = 44,992.50 – 34,572.50 = Rs. 10,420 }{1 M}

(iii) In case of discount in purchase price, the total cost of Purchase cost, ordering cost and carrying cost should be compared.

Original offer at Rs. 80 per unit		Supplier offered at Rs. 72 per unit	
	Rs.		Rs.
Purchase Cost (48,000 × 80)	38,40,000.00	Purchase cost (48,000 × 72)	34,56,000.00
Ordering cost	22,950.00	Ordering cost	0.00
Carrying cost	22,042.50	Carrying cost $\frac{1}{2} \times 48,000 \times 15$	3,60,000.00
Total cost	38,84,992.50		38,16,000.00

(Each bold 1.5 M)

This special offer at Rs. 72 per unit should be accepted as it saves Rs. 68,992.50 as compared to original offer.

Answer:

- (b) Break- even point (in units) is 50% of sales i.e. 12,000 units.
Hence, Break- even point (in sales value) is 12,000 units x Rs. 200 = Rs. 24,00,000
- (i) We know that Break even sales = $\frac{\text{Fixed Cost}}{\text{P/ V ratio}}$
Or, Rs. 24,00,000 = $\frac{\text{Fixed Cost}}{25\%}$
Or, Fixed Cost = Rs. 24,00,000 x 25%
= Rs. 6,00,000 **{2 M}**
- So Fixed Cost for the year is Rs. 6,00,000
- (ii) Contribution for the year = (24,000 units x Rs. 200) x 25%
= Rs. 12,00,000 **{1 M}**
Profit for the year = Contribution – Fixed Cost
= Rs. 12,00,000 - Rs. 6,00,000
= Rs. 6,00,000 **{1 M}**
- (iii) Target net profit is Rs. 11,00,000
Hence, Target contribution = Target Profit + Fixed Cost
= Rs. 11,00,000 + Rs. 6,00,000
= Rs. 17,00,000 **{1 M}**
Contribution per unit = 25% of Rs. 200 = Rs. 50 per unit
No. of units = $\frac{\text{Rs. 17,00,000}}{\text{Rs. 50 per unit}} = 34,000 \text{ unit } \{1 \text{ M}\}$
So, 34,000 units to be sold to earn a target net profit of Rs. 11,00,000 for a year.
- (iv) Net desired total Sales (Number of unit x Selling price) be x then desired profit is 25% on Cost or 20% on Sales i.e. 0.2 x
Desired Sales = $\frac{\text{Fixed Cost} + \text{Desired Profit}}{\text{P/ V ratio}}$
x = $\frac{6,00,000 + 0.2 x}{25\%}$
or, 0.25 x = 6,00,000 + 0.2 x
or, 0.05 x = 6,00,000
or, x = Rs. 1,20,00,000
No. of units to be sold - $\frac{\text{Rs. 1,20,00,000}}{\text{Rs. 200}} = 60,000 \text{ units } \{2 \text{ M}\}$
- (v) If Break- even point is to be brought down by 4,000 units then Break-even point will be 12,000 units – 4,000 units = 8,000 units
Let Selling price be Rs. x and fixed cost and variable cost per unit remain unchanged i.e. Rs. 6,00,000 and Rs. 150 respectively.
Break even point: Sales revenue = Total cost
8,000 x = 8,000 x Rs. 150 + Rs. 6,00,000
Or, 8,000 x = Rs. 12,00,000 + Rs. 6,00,000
Or, x = $\frac{\text{Rs. 18,00,000}}{8,000} = \text{Rs. 225}$
∴ Selling Price should be Rs. 225 **{2 M}**
Hence, selling price per unit shall be Rs. 225 if Break-even point is to be brought down by 4,000 units.

Answer 6:

(a)

S. No.	Cost Control	Cost Reduction
1	Cost control aims at maintaining the costs in accordance with the established standards.	Cost reduction is concerned with reducing costs. It challenges all standards and endeavours to improvise them continuously.
2	Cost control seeks to attain lowest possible cost under existing conditions.	Cost reduction recognises no condition as permanent, since a change will result in lower cost.
3	In case of cost control, emphasis is on past and present.	In case of cost reduction, it is on present and future.
4	Cost control is a preventive function.	Cost reduction is a corrective function. It operates even when an efficient cost control system exists.
5	Cost control ends when targets are achieved.	Cost reduction has no visible end and is a continuous process.

(Each point 1 M)

Answer:

(b) "Like other branches of accounting, cost accounting also has certain limitations". The limitations of cost accounting are as follows: } (1/2 M)

- (i) **Expensive:** It is expensive because analysis, allocation and absorption of overheads requires considerable amount of additional work, and hence additional money.
- (ii) **Requirement of reconciliation:** The results shown by cost accounts differ from those shown by financial accounts. Thus, preparation of reconciliation statements is necessary to verify their accuracy.
- (iii) **Duplication of work:** It involves duplication of work as organization has to maintain two sets of accounts i.e. Financial Accounts and Cost Accounts.

(Each point 1.5 M)

Answer:

(c) The advantages of zero-based budgeting are as follows:

- It provides a systematic approach for the evaluation of different activities and ranks them in order of preference for the allocation of scarce resources.
- It ensures that the various functions undertaken by the organization are critical for the achievement of its objectives and are being performed in the best possible way.
- It provides an opportunity to the management to allocate resources for various activities only after having a thorough cost-benefit-analysis. The chances of arbitrary cuts and enhancement are thus avoided.
- The areas of wasteful expenditure can be easily identified and eliminated.
- Departmental budgets are closely linked with corporation objectives.
- The technique can also be used for the introduction and implementation of the system of 'management by objective.' Thus, it cannot only be used for fulfillment of the objectives of traditional budgeting but it can also be used for a variety of other purposes.

(Any five 1 M each)

Answer:

- (d) This product costing system is used when an entity produces more than one variant of final product using different materials but with similar conversion activities. This means conversion activities are similar for all the product variants but materials differ significantly. Operation Costing method is also known as Hybrid product costing system as materials costs are accumulated by job order or batch wise but conversion costs i.e. labour and overheads costs are accumulated by department, and process costing methods are used to assign these costs to products. Moreover, under operation costing, conversion costs are applied to products using a predetermined application rate. This predetermined rate is based on budgeted conversion costs. The two examples of industries are Ready made garments and Jewellery making. } {5 M}

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