(GI-2, GI-6, GI-7, VI-1, VDI-1, DRIVE & FMT)

DATE: 25.09.2023 **MAXIMUM MARKS: 100** **TIMING: 3¼ Hours**

COST AND MANAGEMENT ACCOUNTING

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) **Fixed cost for the year**

Total Sales (43,200 units x Rs. 150 per unit) = Rs. 64,80,000

Break Even Sales = Rs. 64,80,000 x 25% = Rs. 16,20,000

Fixed cost = Break Even Sales x P/V ratio

= Rs. 16,20,000 x 20% = **Rs. 3,24,000**

(ii) **Profit earned for the year**

Profit = (Total Sales x P/V ratio) - Fixed cost

= (Rs. 64,80,000 x 20%) - Rs. 3,24,000

= **Rs. 9,72,000**

(iii) **Margin of Safety in units**

Margin of safety (units) $= \frac{\text{Pr}ofit}{Cont.\ per\ unit}$

$= \frac{Rs.\ 9{,}72{,}000}{Rs.\ 30} = 32{,}400\ units$

(iv) **No of units to be sold to earn a profit of Rs. 12,00,000**

Desired Sales $= \frac{Fixed\ Cost + Desired\ \text{Pr}ofit}{Cont.\ per\ unit}$

$= \frac{Rs.\ 3{,}24{,}000 + Rs.\ 12{,}00{,}000}{Rs.\ 30}$

= 50,800 units

(Each point 1.25 M)

Answer:

(b) **(a)** Variable Cost per Unit = $\frac{\text{Change in Semi - variable cost under two production level}}{\text{Change in production quantity in two levels}}$

= $\frac{\text{Rs. 3,10,000 - Rs. 2,80,000}}{\text{42,000 units - 36,000 units}}$

= Rs. 5 per units }(2.5 M)

(b) Total Fixed Cost = Semi Variable Cost for 36,000 units – Variable cost for 36,000 units

= Rs. 2,80,000 – (36,000 units × Rs. 5)

= Rs. 1,00,000 }(2.5 M)

Answer:

(c) (a) Rated capacity 36.5 tonnes
(Refers to the capacity of a machine or a plant as indicated by its manufacturer)

(b) Practical capacity 30.0 tonnes
[Defined as actually utilised capacity of a plant i.e. $\frac{36.5\ tonnes}{365\ days} \times (365 - 65)\ days$

(c) Normal capacity 25.0 tonnes
(It is the capacity of a plant utilized based on sales expectancy)

(d) Actual capacity 25.2 tonnes
(Refers to the capacity actually achieved)

(Each point 1.25 M)

Answer:

(d) (i) Statement of Equivalent Production (Using FIFO method)

Particulars	Input Units	Particulars	Output Units	Equivalent Production			
				Material		Labour & O.H.	
				%	Units	%	Units
Opening WIP	10,000	Completed and transferred to Process-II					
Units introduced	55,000	- From opening WIP	10,000	-		30	3,000
		- From fresh inputs	33,500	100	33,500	100	33,500
			43,500		33,500		36,500
		Normal Loss {5% (10,000 + 55,000 units)}	3,250	-			-
		Abnormal loss (9,500 – 3,250)	6,250	100	6,250	60	3,750
		Closing WIP	12,000	100	12,000	90	10,800
	65,000		**65,000**		**51,750**		**51,050**

(Each Bold 1/10 M)

(ii) Abnormal Loss A/c

Particulars	Units	(Rs.)	Particulars	Units	(Rs.)
To Process-I A/c (Refer Working Note-2)	**6,250**	**29,698**	By Cost Ledger Control A/c (6,250 units × Rs. 8.5)	**6,250**	**53,125**
To Costing Profit & Loss A/c	**-**	**23,427**			
	6,250	**53,125**		**6,250**	**53,125**

(Each Bold 1/10 M)

Working Notes:

1. Computation of Cost per unit

Particulars	Materials (Rs.)	Labour (Rs.)	Overhead (Rs.)
Input costs	**2,20,000**	**26,500**	**61,500**
Less: Realisable value of normal scrap (3,250 units x Rs. 8.5)	**(27,625)**	**--**	**--**
Net cost	**1,92,375**	**26,500**	**61,500**
Equivalent Units	**51,750**	**51,050**	**51,050**
Cost Per Unit	**3.7174**	**0.5191**	**1.2047**

Total cost per unit = Rs. (3.7174 + 0.5191 + 1.2047) = Rs. 5.4412

(Each Bold 1/10 M)

2. Valuation of Abnormal Loss

	(Rs.)
Materials (6,250 units × Rs. 3.7174)	23,233.75

Labour (3,750 units × Rs. 0.5191)	1,946.63
Overheads (3,750 units × Rs. 1.2047)	4,517.62
	29,698

Answer 2:

(a) Statement of Cost for the month of March, 2021 (2,30,000 = 1M) (Rest Bold = 1.8M)

Particulars	Amount (Rs.)	Amount (Rs.)
(i) Cost of Material Consumed:		
Raw materials purchased (Rs. 2,00,000 – Rs. 40,000)	1,60,000	
Carriage inwards	20,000	
Add: Opening stock of raw materials	80,000	
Less: Closing stock of raw materials	(30,000)	**2,30,000**
Direct Wages		1,20,000
Direct expenses:		
Cost of special drawing	30,000	
Hire charges paid for Plant	24,000	54,000
(ii) Prime Cost		**4,04,000**
Carriage on return	6,000	
Store overheads (10% of material consumed)	23,000	
Factory overheads (20% of Prime cost)	80,800	
Additional expenditure for rectification of defective products (refer working note)	2,160	1,11,960
Gross factory cost		5,15,960
Add: Opening value of W-I-P		50,000
Less: Closing value of W-I-P		(24,000)
(iii) Works/ Factory Cost		**5,41,960**
Less: Realisable value on sale of scrap		(5,000)
(iv) Cost of Production		**5,36,960**
Add: Opening stock of finished goods		-
Less: Closing stock of finished goods		-
Cost of Goods Sold		**5,36,960**
Administrative overheads:		
Maintenance of office building	2,000	
Salary paid to Office staff	25,000	
Legal Charges	2,500	29,500
Selling overheads:		
Expenses for participation in Industrial exhibition	8,000	8,000
Distribution overheads:		
Depreciation on delivery van	6,000	
Warehousing charges	1,500	7,500
(v) Cost of Sales		**5,81,960**

Alternative Solution
(considering Hire charges paid for Plant as indirect expenses)
Statement of Cost for the month of March, 2021

Particulars	Amount (Rs.)	Amount (Rs.)
Cost of Material Consumed:		
Raw materials purchased (Rs. 2,00,000 – Rs. 40,000)	1,60,000	
Carriage inwards	20,000	
Add: Opening stock of raw materials	80,000	
Less: Closing stock of raw materials	(30,000)	**2,30,000**
Direct Wages		1,20,000

Direct expenses:		
Cost of special drawing	30,000	30,000
Prime Cost		**3,80,000**
Hire charges paid for Plant	24,000	
Carriage on return	6,000	
Store overheads (10% of material consumed)	23,000	
Factory overheads (20% of Prime cost)	76,000	
Additional expenditure for rectification of defective products (refer working note)	2,160	1,31,160
Gross factory cost		**5,11,160**
Add: Opening value of W-I-P		50,000
Less: Closing value of W-I-P		(24,000)
Works/ Factory Cost		**5,37,160**
Less: Realisable value on sale of scrap		(5,000)
Cost of Production		**5,32,160**
Add: Opening stock of finished goods		-
Less: Closing stock of finished goods		-
Cost of Goods Sold		**5,32,160**
Administrative overheads:		
Maintenance of office building	2,000	
Salary paid to Office staff	25,000	
Legal Charges	2,500	29,500
Selling overheads:		
Expenses for participation in Industrial exhibition	8,000	8,000
Distribution overheads:		
Depreciation on delivery van	6,000	
Warehousing charges	1,500	7,500
Cost of Sales		**5,77,160**

Working Notes:

1. Number of Rectified units

Total Output	8,000 units
Less: Rejected 10%	800 units
Finished product	7,200 units
Rectified units (10% of finished product)	**720 units**

2. Proportionate additional expenditure on 720 units

= 20% of proportionate direct wages
= 0.20 x (Rs. 1,20,000/8,000) x 720
= Rs. 2,160

Answer:

(b) **Production Budget of Product Minimax and Heavyhigh (in units)**

	April		May		June		Total	
	MM	HH	MM	HH	MM	HH	MM	HH
Sales	**8,000**	**6,000**	**10,000**	**8,000**	**12,000**	**9,000**	**30,000**	**23,000**
Add: Closing Stock (25% of next month's sale)	**2,500**	**2,000**	**3,000**	**2,250**	**4,000**	**3,500**	**9,500**	**7,750**
Less: Opening Stock	**2,000***	**1,500***	**2,500**	**2,000**	**3,000**	**2,250**	**7,500**	**5,750**
Production units	**8,500**	**6,500**	**10,500**	**8,250**	**13,000**	**10,250**	**32,000**	**25,000**

* Opening stock of April is the closing stock of March, which is as per company's policy 25% of next month'' sale.

(Each bold 1/4 M)

Production Cost Budget

Element of cost	Rate (Rs.)		Amount (Rs.)	
	MM	HH	MM	HH

	(32,000 units)	(25,000 units)		
Direct Material	220	280	**70,40,000**	**70,00,000**
Direct Labour	130	120	**41,60,000**	**30,00,000**
Manufacturing Overhead (4,00,000 ÷ 1,80,000 × 32,000)			**71,111**	
(5,00,000 ÷ 1,20,000 × 25,000)				**1,04,167**
			1,12,71,111	**1,01,04,167**

(Each bold 1/4 M)

Answer 3:

(a) 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**

***** 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)

(Each bold 1/2 M)

Answer:

(b)

(i) Process- A Account

Particulars	Units	Amount (Rs.)	Particulars	Units	Amount (Rs.)
To Input	**40,000**	**3,60,000**	By Normal wastage (2,000 units × Rs. 15)	**2,000**	**30,000**
To Material	---	**2,42,000**	By Abnormal loss A/c (1,000 units × Rs. 27)	**1,000**	**27,000**
To Direct wages	---	**2,58,000**	By Process- B (29,600 units × Rs. 27)	**29,600**	**7,99,200**
To Manufacturing Exp.	---	**1,96,000**	By Profit & Loss A/c (7,400 units × Rs. 27)	**7,400**	**1,99,800**
	40,000	10,56,000		40,000	10,56,000

(Each bold 1/5 M)

$$\text{Cost per unit} = \frac{`10,56,000 - `30,000}{40,000\text{units} - 2,000\text{units}} = `\ 27 \text{ per unit}$$

Normal wastage = 40,000 units × 5% = 2,000 units
Abnormal loss = 40,000 units – (37,000 units + 2,000 units) = 1,000 units
Transfer to Process- B = 37,000 units × 80% = 29,600 units
Sale = 37,000 units × 20% = 7,400 units

Process- B Account

Particulars	Units	Amount (Rs.)	Particulars	Units	Amount (Rs.)
To Process- A A/c	**29,600**	**7,99,200**	By Normal wastage (2,960 units × Rs. 20)	**2,960**	**59,200**
To Material	---	**2,25,000**	By Profit & Loss A/c (27,000 units × Rs. 48)	**27,000**	**12,96,000**
To Direct Wages	---	**1,90,000**			
To Manufacturing Exp.	---	**1,23,720**			
To Abnormal Gain A/c (360 units × Rs. 48)	**360**	**17,280**			
	29,960	13,55,200		29,960	13,55,200

(Each bold 1/5 M)

$$\text{Cost per unit} = \frac{`13,37,920 - `59,200}{29,600\text{units} - 2,960\text{units}} = `\ 48 \text{ per unit}$$

Normal wastage = 29,600 units × 10% = 2,960 units

Abnormal gain = (27,000 units + 2,960 units) – 29,600 units = 360 units

(ii)

Profit & Loss Account

Particulars	Amount (Rs.)	Particulars	Amount (Rs.)
To Process- A A/c	**1,99,800**	By Sales:	
To Process- B A/c	**12,96,000**	- Process-A (7,400 units × Rs. 37)	**2,73,800**
To Abnormal loss A/c	**12,000**	- Process- B (27,000 units × Rs. 61)	**16,47,000**
To Indirect Expenses	**4,48,080**	By Abnormal gain	**10,080**
		By Net loss	**25,000**
	19,55,880		19,55,880

(Each bold 1/5 M)

Working Notes:

Normal wastage (Loss) Account

Particulars	Units	Amount (Rs.)	Particulars	Units	Amount (Rs.)
To Process- A A/c	**2,000**	**30,000**	By Abnormal Gain A/c (360 units × Rs. 20)	**360**	**7,200**
To Process- B A/c	**2,960**	**59,200**	By Bank (Sales)	**4,600**	**82,000**
	4,960	89,200		4,960	89,200

(Each bold 1/5 M)

Abnormal Loss Account

Particulars	Units	Amount (Rs.)	Particulars	Units	Amount (Rs.)
To Process- A A/c	**1,000**	**27,000**	By Bank A/c (1,000 units × Rs. 15)	**1,000**	**15,000**
			By Profit & Loss A/c	**---**	**12,000**
	1,000	27,000		1,000	27,000

(Each bold 1/5 M)

Abnormal Gain Account

Particulars	Units	Amount (Rs.)	Particulars	Units	Amount (Rs.)
To Normal loss A/c	**360**	**7,200**	By Process- B A/c	**360**	**17,280**

(360 units × Rs. 20)					
To Profit & Loss A/c		**10,080**			
	360	17,280		360	17,280

(Each bold 1/5 M)

Answer 4:

(a) (i) Material Usage Variance = Std. Price (Std. Quantity – Actual Quantity)
= Rs. 90 (9,000 kg. – 8,900 kg.)
= Rs. 9,000 (Favourable)

(ii) Material Price Variance = Actual Quantity (Std. Price – Actual Price)
= 8,900 kg. (Rs. 90 – Rs. 92) = Rs. 17,800 (Adverse)

(iii) Material Cost Variance = Std. Material Cost – Actual Material Cost
= (SQ × SP) – (AQ × AP)
= (9,000 kg. × Rs. 90) – (8,900 kg. × Rs. 92)
= Rs. 8,10,000 – Rs. 8,18,800
= Rs. 8,800 (Adverse)

(iv) Labour Efficiency Variance = Std. Rate (Std. Hours – Actual Hours)
= Rs. 80 ($\frac{9,000}{10}$ x 8 hours – 7,000 hrs.)
= Rs. 80 (7,200 hrs. – 7,000 hrs.)
= Rs. 16,000 (Favourable)

(v) Labour Rate Variance = Actual Hours (Std. Rate – Actual Rate)
= 7,000 hrs. (Rs. 80 – Rs. 84)
= Rs. 28,000 (Adverse)

(vi) Labour Cost Variance = Std. Labour Cost – Actual Labour Cost
= (SH × SR) – (AH × AR)
= (7,200 hrs. × Rs. 80) – (7,000 hrs. × Rs. 84)
= Rs. 5,76,000 – Rs. 5,88,000
= Rs. 12,000 (Adverse)

(vii) Variable Cost Variance = Std. Variable Cost – Actual Variable Cost
= (7,200 hrs. × Rs. 20) – Rs. 1,40,000
= Rs. 4,000 (Adverse)

(viii) Fixed Overhead Cost Variance= Absorbed Fixed Overhead – Actual Fixed Overhead
= $\frac{250}{10\ kgs}$ x 9,000kgs. – Rs. 2,60,000
= Rs. 2,25,000 – Rs. 2,60,000 = Rs. 35,000 (Adverse)

(Each point = 1.25 M)

Answer:

(b) Working Notes:

1. Total Distance (in km.) covered per month

Bus route	Km. per trip	Trips per day	Days per month	Km. per month
Delhi to Hisar	160	2	9	2,880
Delhi to Aligarh	160	2	12	3,840
Delhi to Alwar	170	2	6	2,040
Total				**8,760**

(Bold 3/4 M)

2. Passenger- km. per month

	Total seats available per month (at 100% capacity)	Capacity utilised		Km. per trip	Passenger-Km. per month
		(%)	Seats		

Delhi to Hisar & Back	900 (50 seats × 2 trips × 9 days)	90	810	160	1,29,600 (810 seats × 160 km.)
Delhi to Aligarh & Back	1,200 (50 seats × 2 trips × 12 days)	95	1,140	160	1,82,400 (1,140 seats × 160 km.)
Delhi to Alwar & Back	600 (50 seats × 2 trips × 6 days)	100	600	170	1,02,000 (600 seats × 170 km.)
Total					**4,14,000**

(Bold 3/4 M)

Monthly Operating Cost Statement

Particulars	(Rs.)	(Rs.)
(i) Running Costs		
Diesel {(8,760 km ÷ 5 km) × Rs. 90}	**1,57,680.00**	
Lubricant oil {(8,760 km ÷ 100) × Rs. 30}	**2,628.00**	**1,60,308.00**
(ii) Maintenance Costs		
Repairs & Maintenance		**5,000.00**
(iii) Standing charges		
Salary to driver	**30,000.00**	
Salary to conductor	**26,000.00**	
Salary of part-time accountant	**7,000.00**	
Insurance (Rs. 6,000 ÷12)	**500.00**	
Road tax (Rs. 21,912 ÷12)	**1,826.00**	
Permit fee	**500.00**	
Depreciation {(Rs. 15,00,000 × 30%) ÷ 12}	**37,500.00**	**1,03,326.00**
Total costs per month before Passenger Tax (i)+(ii)+(iii)		**2,68,634.00**
Passenger Tax*		**1,07,453.60**
Total Cost		**3,76,087.60**
Add: Profit*		**1,61,180.40**
Total takings per month		**5,37,268.00**

*Let total takings be X then, **(Each bold 1/4 M)**

X = Total costs per month before passenger tax + 0.2 X (passenger tax) + 0.3 X (profit)

X = Rs. 2,68,634 + 0.2 X + 0.3 X

0.5 X = Rs. 2,68,634 or, X = Rs. 5,37,268

Passenger Tax = 20% of Rs. 5,37,268 = Rs. 1,07,453.60

Profit = 30% of Rs. 5,37,268 = Rs. 1,61,180.40

Calculation of Rate per passenger km. and fares to be charged for different routes

Rate per Passenger-Km. = $\frac{\text{Total takings per month}}{\text{Total Passenger - Km. per month}}$

= $\frac{\text{Rs. 5,37,268}}{\text{Rs. 4,14,000 Passenger-Km.}}$ = **Rs. 1.30 (approx.) }{2 M}**

Bus fare to be charged per passenger:

Delhi to Hisar	=	Rs. 1.30 x 160 km	=	**Rs. 208.00**
Delhi to Aligarh	=	Rs. 1.30 x 160 km	=	**Rs. 208.00**
Delhi to Alwar	=	Rs. 1.30 x 170 km	=	**Rs. 221.00**

(Each bold ¾ M)

Answer 5:

(a) (i) Statement of Operating income and Operating income as a percentage of revenues for each product line

(When support costs are allocated to product lines on the basis of cost of goods sold of each product)

	Soft Drinks (Rs.)	**Fresh Produce (Rs.)**	**Packaged Foods (Rs.)**	**Total (Rs.)**
Revenues: (A)	**39,67,500**	**1,05,03,000**	**60,49,500**	**2,05,20,000**
Cost of Goods sold (COGS): (B)	**30,00,000**	**75,00,000**	**45,00,000**	**1,50,00,000**
Support cost (30% of COGS): (C) (Refer working notes)	**9,00,000**	**22,50,000**	**13,50,000**	**45,00,000**
Total cost: (D) = {(B) + (C)}	**39,00,000**	**97,50,000**	**58,50,000**	**1,95,00,000**
Operating income: E= {(A)-(D)}	**67,500**	**7,53,000**	**1,99,500**	**10,20,000**
Operating income as a percentage of revenues: (E/A) × 100)	**1.70%**	**7.17%**	**3.30%**	**4.97%**

(Each bold 1/8 M)

Working notes:

1. Total support cost:

	(Rs.)
Bottles returns	**60,000**
Ordering	**7,80,000**
Delivery	**12,60,000**
Shelf stocking	**8,64,000**
Customer support	**15,36,000**
Total support cost	**45,00,000**

(Each bold 1/8 M)

2. Percentage of support cost to cost of goods sold (COGS):

$$= \frac{\text{Total support cost}}{\text{Total cost of goods sold}} \times 100$$

$$= \frac{\text{Rs. } 45,00,000}{\text{Rs. } 1,50,00,000} \times 100 = 30\%$$

(30% = ¾ M)

3. Cost for each activity cost driver:

Activity (1)	Total cost (Rs.) (2)	Cost allocation base (3)	Cost driver rate (4)=[(2)÷(3)]
Ordering	7,80,000	1,560 purchase orders	**Rs. 500 per purchase order**
Delivery	12,60,000	3,150 deliveries	**Rs. 400 per delivery**
Shelf-stocking	8,64,000	8,640 hours	**Rs. 100 per stocking hour**
Customer support	15,36,000	15,36,000 items sold	**Rs. 1 per item sold**

(Each bold 1/8 M)

(ii) Statement of Operating income and Operating income as a percentage of revenues for each product line

(When support costs are allocated to product lines using an activity- based costing system)

	Soft drinks (Rs.)	Fresh Produce (Rs.)	Packaged Food (Rs.)	Total (Rs.)
Revenues: (A)	**39,67,500**	**1,05,03,000**	**60,49,500**	**2,05,20,000**
Cost & Goods sold	**30,00,000**	**75,00,000**	**45,00,000**	**1,50,00,000**
Bottle return costs	**60,000**	**0**	**0**	**60,000**
Ordering cost* (360:840:360)	**1,80,000**	**4,20,000**	**1,80,000**	**7,80,000**

Delivery cost* (300:2190:660)	**1,20,000**	**8,76,000**	**2,64,000**	**12,60,000**
Shelf stocking cost* (540:5400:2700)	**54,000**	**5,40,000**	**2,70,000**	**8,64,000**
Customer Support cost* (1,26,000:11,04,000:3,06,000)	**1,26,000**	**11,04,000**	**3,06,000**	**15,36,000**
Total cost: (B)	**35,40,000**	**1,04,40,000**	**55,20,000**	**1,95,00,000**
Operating income C:{(A)- (B)}	**4,27,500**	**63,000**	**5,29,500**	**10,20,000**
Operating income as a % of revenues	**10.78%**	**0.60%**	**8.75%**	**4.97%**

* Refer to working note 3

(Each bold 1/8 M)

(b) A shop floor supervisor of a small factory presented the following cost for Job No. 303, to determine the selling price.

	Per unit (Rs.)
Materials	70
Direct wages 18 hours @ Rs. 2.50 (Deptt. X 8 hours; Deptt. Y 6 hours; Deptt. Z 4 hrs)	45
Chargeable expenses	5
	120
Add : 33-1/3 % for expenses cost	40
	160

Analysis of the Profit/Loss Account
(For the year 20X2)

		(Rs.)		**(Rs.)**
Materials used		1,50,000	Sales less returns	2,50,000
Direct wages :				
Deptt. X	10,000			
Deptt. Y	12,000			
Deptt. Z	8,000	30,000		
Special stores items		4,000		
Overheads :				
Deptt. X	5,000			
Deptt. Y	9,000			
Deptt. Z	2,000	16,000		
Works cost		2,00,000		
Gross profit c/d		50,000		
		2,50,000		2,50,000
Selling expenses		20,000	Gross profit b/d	50,000
Net profit		30,000		
		50,000		50,000

It is also noted that average hourly rates for the three Departments X, Y and Z are similar.

You are required to :
(i) Draw up a job cost sheet.
(ii) Calculate the entire revised cost using 20X2 actual figures as basis.
(iii) Add 20% to total cost to determine selling price.

Answer:

(b) **Job Cost Sheet**

Customer Details ————————— Job No._____
Date of commencement ——— Date of completion _____

Particulars	Amount (Rs.)
Direct materials	**70**
Direct wages:	
Deptt. X Rs. 2.50 × 8 hrs. = Rs. 20.00	
Deptt. Y Rs. 2.50 × 6 hrs. = Rs. 15.00	
Deptt. Z Rs. 2.50 × 4 hrs. = Rs. 10.00	**45**
Chargeable expenses	**5**
Prime cost	**120**
Overheads:	
Deptt. X = $\frac{Rs.5,000}{Rs.10,000}$ × 100 = 50% of Rs. 20 = Rs. 10.00	
Deptt. Y = $\frac{Rs.9,000}{Rs.12,000}$ × 100 = 75% of Rs. 15 = Rs. 11.25	
Deptt. Z = $\frac{Rs.2,000}{Rs.8,000}$ × 100 = 25% of Rs. 10 = Rs. 2.50	**23.75**
Works cost	**143.75**
Selling expenses = $\frac{Rs.20,000}{Rs.2,00,000}$ × 100 = 10% of work cost	**14.38**
Total cost	**158.13**
Profit (20% of total cost)	**31.63**
Selling price	**189.76**

(Each bold 1M)

Answer 6:

(a) **Cost Unit of Industries:**

S. No.	Industry	Cost Unit Basis
(i)	Electricity	Kilowatt-hour (kWh)
(ii)	Automobile	Number
(iii)	Cement	Ton/ per bag etc.
(iv)	Steel	Ton
(v)	Gas	Cubic feet
(vi)	Brick-making	1,000 bricks
(vii)	Coal mining	Tonne/ton
(viii)	Engineering	Contract, job
(ix)	Professional services	Chargeable hour, job, contract
(x)	Hospitals	Patient day

{Each Point 1/2 M}

Answer:

(b) **Method of Costing**

S.No.	Industry	Method of Costing
(i)	Oil Refinery	Process Costing
(ii)	Interior Decoration	Job Costing
(iii)	Airlines Company	Operation/ Service Costing
(iv)	Advertising	Job Costing
(v)	Car Assembly	Multiple Costing

{Each Point 1 M}

Answer:

(c) **Zero-based Budgeting:** (ZBB) is an emergent form of budgeting which arises to overcome the limitations of incremental (traditional) budgeting system. Zero- based Budgeting (ZBB) is **defined** as 'a method of budgeting which requires each cost element to be specifically justified, although the activities to which the budget relates are being undertaken for the first time, without approval, the budget allowance is zero'. **{1.5 M}**

ZBB is an activity based budgeting system where budgets are prepared for each activities rather than functional department. Justification in the form of cost benefits for the activity is required to be given. The activities are then evaluated and prioritized by the management on the basis of factors like synchronisation with organisational objectives, availability of funds, regulatory requirement etc. **{1.5 M}**

ZBB is suitable for both corporate and non-corporate entities. In case of non-corporate entities like Government department, local bodies, not for profit organisations, where these entities need to justify the benefits of expenditures on social programmes like mid-day meal, installation of street lights, provision of drinking water etc.

ZBB involves the following stages:

(i) Identification and description of Decision packages
(ii) Evaluation of Decision packages
(iii) Ranking (Prioritisation) of the Decision packages
(iv) Allocation of resources

{Each Point 1/2 M}

Answer:

(d) Treatment of items in arriving at the value of cost of material Purchased

S. No.	Items	Treatment
(i)	**Detention charges/ Fine**	Detention charges/ fines imposed for non-compliance of rule or law by any statutory authority. It is an abnormal cost and **not included** with cost of purchase.
(ii)	**Demurrage**	Demurrage is a penalty imposed by the transporter for delay in uploading or offloading of materials. It is an abnormal cost and **not included** with cost of purchase.
(iii)	**Cost of returnable containers**	Treatment of cost of returnable containers are as follows: Returnable Containers: If the containers are returned and their costs are refunded, then cost of containers should not be considered in the cost of purchase. If the amount of refund on returning the container is less than the amount paid, then, only the short fall is added with the cost of purchase.
(iv)	**Central Goods and Service Tax (CGST)**	Central Goods and Service Tax (CGST) is paid on manufacture and supply of goods and collected from the buyer. It **is excluded** from the cost of purchase if the input credit is available for the same. Unless mentioned specifically CGST is not added with the cost of purchase.
(v)	**Shortage due to abnormal reasons**	Shortage arises due to abnormal reasons such as material mishandling, pilferage, or due to any avoidable reasons are not absorbed by the good units. Losses due to abnormal reasons are debited to costing profit and loss account.

{Each Point 1 M}

—**—