

() DATE	GI-1, GI-2, GI-3, GI-6, VI-1, SI-1, VDI-1)E: 25.10.2021MAXIMUM MARKS: 100TIMING: 3¼ Hours
	PAPER : COSTING
Can Can In abo ansv	Answer to questions are to be given only in English except in the case of didates 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. didates are also required to answer any Four questions from the remaining Five Questions. case, any candidate answers extra question(s)/sub-question(s) over and ove the required number, then only the requisite number of questions first wered in the answer book shall be valued and subsequent extra question(s) answered shall be ignored. erever necessary, suitable assumptions may be made and disclosed by way of note.
Ansv (a)	ver 1:Difference between Minimum lead time Maximum lead time = 4 daysMax. lead time – Min. lead time = 4 daysOr, Max. lead time = Min. lead time + 4 days(i)Average lead time is given as 6 days i.e.Max.lead time + Min.lead time2Putting the value of (i) in (ii),Min. lead time + 4 days + Min.lead time20r, Min. lead time + 4 days + Min.lead time20r, Min. lead time + 4 days + Min. lead time390r, Z Min. lead time42999
(i)	Maximum consumption per day: Re-order level = Max. Re-order period × Maximum Consumption per day 1,60,000 units = 8 days × Maximum Consumption per dayOr, Maximum Consumption per day = $\frac{1,60,000 \text{ units}}{8 \text{ days}}$ = 20,000 units }{2.5 M}
(ii)	Minimum Consumption per day: Maximum Stock Level = Re-order level + Re-order Quantity – (Min. lead time × Min. Consumption per day) Or, 1,90,000 units = 1,60,000 units + 90,000 units – (4 days × Min. Consumption per day) Or, 4 days × Min. Consumption per day = 2,50,000 units – 1,90,000 units Or, Minimum Consumption per day = $\frac{60,000 \text{ units}}{4 \text{ days}}$ = 15,000 units }{2.5 M}



Answer:

1	h	١
L	D)

(b)	Labour Turnover by	Replacement Method = No. of workers replaced during the quarter								
		Average no. of workers on roll during the quarter								
	Or,	0.03 = $\frac{\text{No. of workers replaced during the quarter}}{(990 + 1,010) \div 2}$								
	Or, No. of workers re (i) Labour Turnov	eplaced during the quarter = 0.03 × 1,000 = 30 workers er by Separation Method								
	$= \frac{\text{No. of workers separated during the quarter}}{\text{Average no. of workers on roll during the quarter}} \times 100$									
	= Worker at be	gining + Fresh recruitment + Replacements – Workers at closing Average no. of workers onroll during the quarter								
	$= \frac{990+40+3}{(990+1,0)}$	$\frac{0-1,010}{10)\div 2} \times 100 = \frac{50 \text{ worker s}}{1,000 \text{ worker s}} \times 100 = 5\% \ \text{{2.5 M}}$								
	(ii) Labour Turnov	er by Flux Method								
	No. of worke	rs (Separated + Replaced + Fresh Re cruitment) during the quarter								
	=	Average no. of workers on roll during the quarter								
	$= \frac{50+30+40}{(990+1,010)-1}$	$\frac{120 \text{ wor ker s}}{1,000 \text{ wor ker s}} \times 100 = 12\% \ \text{2.5 M}$								
Answe	er:									
(c)	Efficiency Ratio ca	In be obtained by dividing the activity ratio by capacity ratio as follows:-								
	Efficiency Ratio	= <u>Activity ratio</u> x100 Capacity ratio								
		$= \frac{104\%}{96\%} \times 100 = 108.33\% \ \{4 \ M\}$								
	The inter - relations	nip is shown below:								
	Activity Ratio	= Std. hours for actual production BudgetedHours x100								
	Capacity ratio	= $\frac{\text{Actual workinghours}}{\text{Budgeted hours}} x 100$								
	Efficiency ratio	= <u> Std.hours for actual production</u> x100 Actual hours worked								
	i.e. Efficiency Ratio	= Activity Ratio Capacity Ratio								
		= $\frac{\text{Std.hours for actual production}}{\text{Budgeted hours}} x \frac{\text{Budgeted hours}}{\text{Actual hours worked}}$								
		= $\frac{\text{Std.hours for actual production}}{\text{Actual hours worked}} x 100$								
	Activity Ratio	= Capacity Ratio × Efficiency Ratio (Activity Ratio Answer = 1 M)								
Answe	er:									

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

Cost pool	Budgeted overheads (Rs.)	Cost driver	Cost driver rate (Rs.)
Material procurement	18,42,000	1,200	1,535.00



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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

(1/2 M each Bold)

(ii) Calculation of cost for the batch:

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

Answer 2:

(a) (i) Material Variances

	Budget		Std. for actual			Actual		
Quantity	Price	Amount	Quantity (Mater)	Price	Amount	Quantity (Mater)	Price	Amount
(weter)	(RS.)	(RS.)	(Weter)	(RS.)	(RS.)	(Weter)	(RS.)	(RS.)
1	60	60	10,000	60	6,00,000	11,400	58	6,61,200

Material Cost Variance	= (SQ × SP – AQ × AP)
= 6,00,000 - 6,61,200	= Rs. 61,200 (A)	}{1 M}
Material Price Variance	= (SP – AP) AQ	
= (60 - 58) 11,400	= Rs. 22,800 (F)	}{1 M}
Material Usage Variance	= (SQ – AQ) SP	
= (10,000 - 11,400) 60	= Rs. 84,000 (A)	}{1 M}

- (ii) Variable Overheads variances
 - Variable overhead cost Variance = Standard variable overhead - Actual Variable Overhead = (10,000 units x 2 hours x Rs. 10) - 2,24,400 = Rs. 24,400 (A) **{1 M}**

Variable overhead Efficiency Variance

= (Standard Hours - Actual Hours) × Standard Rate per Hour

Let Actual Hours be 'X', then:

- $(20,000 X) \times 10$ = 4,000 (A)= - 4,000
- 2,00,000 10X
 - Х = 2,04,000 ÷ 10

Therefore, Actual Hours (X) = 20,400 }{1 M}

Variable overhead Expenditure Variance

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= Variable Overhead at Actual Hours - Actual Variable Overheads
= 20,400 \times \text{Rs.} 10 - 2,24,400 = \text{Rs.} 20,400 \text{ (A)}
                                                         }{1 M}
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- (iii) Labour variances

Budget			Std. for actual			Actual		
Hours	Rate	Amount	Hours	Rate	Amount	Hours	Rate	Amount





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	(Rs.)	(Rs.)		(Rs.)	(Rs.)		(Rs.)	(Rs.)
2	20	40	20,000	20	4,00,000	20,400	22*	4,48,800

*Actual Rate = Rs. 4,48,800 \div 20,400 hours = Rs. 22 $\{1 M\}$ Labour Cost Variance = (SH × SR) – (AH × AR) = 4,00,000 – 4,48,800 = Rs. 48,800 (A) $\{1 M\}$ Labour Rate Variance = (SR – AR) × AH = (20 – 22) × 20,400 = Rs. 40,800 (A) $\{1 M\}$ Labour Efficiency Variance = (SH – AH) × SR = (20,000 – 20,400) × 20 = Rs. 8,000 (A) $\{1 M\}$

Answer:

(b) Store Ledger of Aditya Ltd. (Weighted Average Method)

Receipts				ls	sues	Balance of Stock		
Qty	Rate	Amount	Qty	Rate	Amount	Qty	Rate	Amount
(kg.)	(Rs.)	(Rs.)	(kg.)	(Rs.)	(Rs.)	(kg.)	(Rs.)	(Rs.)
-	-	-	-	-	-	1,200	475.00	5,70,000
-	-	-	975	475.00	4,63,125	225	475.00	1,06,875
3,500	460.00	16,10,000	-	-	-	3,725	460.91	17,16,875
-	-	-	2,400	460.91	11,06,175	1,325	460.91	6,10,700
475	460.91	2,18,932	-	-	-	1,800	460.91	8,29,632
1,800	480.00	8,64,000	-	-	-	3,600	470.45	16,93,632
-	-	-	140	480.00	67,200	3,460	470.07	16,26,432
-	-	-	1,900	470.07	8,93,133	1,560	470.06	7,33,299
-	-	-	180*	470.06	84,611	1,380	470.06	6,48,688
	Qty (kg.) - 3,500 - 475 1,800 - - -	Rete Qty Rate (kg.) (Rs.) - - - - 3,500 460.00 - - 475 460.91 1,800 480.00 - - - - - -	Receipts Qty Rate (kg.) Amount (Rs.) - - - - - - 3,500 460.00 16,10,000 - - - 475 460.91 2,18,932 1,800 480.00 8,64,000 - - - - - -	Receipts Qty Rate (kg.) Amount (Rs.) Qty (kg.) - - - - - - - - - - - 975 3,500 460.00 16,10,000 - - - - 2,400 475 460.91 2,18,932 - 1,800 480.00 8,64,000 - - - - 140 - - - 1,900 - - - 180*	Receipts Is: Qty Rate Amount Qty Rate (kg.) (Rs.) (Rs.) (kg.) (Rs.) - - - - - - - - 975 475.00 3,500 460.00 16,10,000 - - - - - 2,400 460.91 475 460.91 2,18,932 - - 1,800 480.00 8,64,000 - - - - - 140 480.00 - - - 1,900 470.07 - - - 180* 470.06	Receipts Issues Qty Rate Amount (Rs.) Qty (Rs.) Rate (Rs.) Amount (Rs.) - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - 3,500 460.00 16,10,000 - - - - - 2,400 460.91 11,06,175 475 460.91 2,18,932 - - - 1,800 480.00 8,64,000 - - - - - 140 480.00 67,200 - - 1,900 470.07 8,93,133 - - - 180* 470.06 84,611	Receipts Issues Bal Qty Rate Amount (Rs.) Qty (Rs.) Rate (Rs.) Amount (Rs.) Qty (Rs.) Rate (Rs.) Amount (Rs.) Qty (kg.) - - - - - 1,200 - - 975 475.00 4,63,125 225 3,500 460.00 16,10,000 - - 3,725 - - 2,400 460.91 11,06,175 1,325 475 460.91 2,18,932 - - 1,800 1,800 480.00 8,64,000 - - 3,600 - - 140 480.00 67,200 3,460 - - 1,900 470.07 8,93,133 1,560 - - - 180* 470.06 84,611 1,380	Receipts Issues Balance of S Qty Rate Amount (Rs.) Qty (Rs.) Rate (kg.) Amount (kg.) Qty (Rs.) Rate (Rs.) Amount (Rs.) Qty (Rs.) Rate (kg.) Amount (kg.) Qty (Rs.) Rate (kg.) Qty (Rs.) Rate (kg.) Qty (Rs.) Rate (kg.) Qty (Rs.) Qty (Rs.) Rate (kg.) Qty (Rs.) Qty (Rs.)

(Each Bold 1/5 M)

* 180 kgs. is abnormal loss, hence it will be transferred to Costing Profit & Loss A/c. }(1.6 M)

Answer 3:

(a) Statement Showing "Budgeted Cost per unit of the Product"

Activity	Activity	Activity Driver	No. of	Activity	Deposits	Loans	Credit
	Cost		Units of	Rate	-		Cards
	(Budgeted)		Activity	(Rs.)			
	(Rs.)		Driver				
			(Budget)				
ATM	8,00,000	No. of ATM	2,00,000	4.00	6,00,000		2,00,000
Services		Transaction					
Computer	10,00,000	No. of Computer	20,00,000	0.50	7,50,000	1,00,000	1,50,000
Processing		processing Transaction					
Issuing Statements	20,00,000	No. of Statements	5,00,000	4.00	14,00,000	2,00,000	4,00,000
Customer Inquiries	3,60,000	Telephone Minutes	7,20,000	0.50	1,80,000	90,000	90,000
Budgeted Cost	41,60,000				29,30,000	3,90,000	8,40,000
Units of Product (as	s estimated in	n the budget period)			58,600	13,000	14,000
Budgeted Cost per	unit of the pi	roduct			50	30	60
						(Each b	old 1/10 M)

Working Note

	Activity	Budgeted	Remark
Activity		Duugeteu	Kennark
		Cost (Rs.)	
ATM	Services:		
(a)	Machine	4,00,000	 All fixed, no change.
. ,	Maintenance		-
(b)	Rents	2,00,000	 Fully fixed, no change.
(c)	Currency		
(0)	Replenishment Cost	2,00,000	 Doubled during budget period.
	Total	8,00,000	
Com	puter Processing	2,50,000	- Rs. 2,50,000 (half of Rs. 5,00,000)
			is fixed and no change is expected.
			- Rs. 2,50,000 (variable portion) is



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		7,50,000	expected to increase to three times
	Total	10,00,000	the current level.
Issuing Statements		18,00,000	- Existing.
_		<u>2,00,000</u>	- 2 lakh statements are expected to
			be increased in budgeted period.
			For every increase of one lakh
			statement, one lakh rupees is the
	Total	20,00,000	budgeted increase.
Computer Inquiries		<u>3,60,000</u>	 Estimated to increase by 80% during
			the budget period.
	Total	3,60,000	(Rs. 2,00,000 x 180%)

(Each Bold 2 M)

Answer: (b)

Journal Entries in Cost Books Maintained on non-integrated system

		(Rs.)	(Rs.)
(i) Work-in-Progress Ledger Control A/c Factory	Dr.	5,50,000	
Overhead Control A/c	Dr.	1,50,000	
To Stores Ledger Control A/c			7,00,000
(Being issue of materials)			
(ii) Work-in Progress Ledger Control A/c Factory	Dr.	2,00,000	
Overhead control A/c	Dr.	40,000	
To Wages Control A/c			2,40,000
(Being allocation of wages and salaries)			
(iii) Factory Overhead Control A/c	Dr.	20,000	
To Costing Profit & Loss A/c			20,000
(Being transfer of over absorption of overhead)			
Costing Profit & Loss A/c	Dr.	10,000	
To Administration Overhead Control A/c			10,000
(Being transfer of under absorption of overhead)			
		(Each	Entry 2.5 M)

Answer 4: (a)

Process III Process Cost Sheet (FIFO Method) Opening Stock: 2,000 units; Introduced: 53,000 units Statement of Equivalent Production

Input		Output		Equivalent production					
ltem	Units	Item	Units	Mat- A	(%)	Mat- B	(%)	Labour & OHs.	(%)
Opening stock	2,000	Work on opening WIP	2,000	-	-	400	20	800	40
Process II transfer	53,000	Introduced & completed during the period (48,000 – 2000)	46.000	46,000	100	46,000	100	46.000	100
			48,000	,		,		,	
		Normal Loss							
		(2,000+53,000 –5,000) x 5%	2,500	-	-	-	-	-	-
		Closing WIP	5,000	5,000	100	3,500	70	2,500	50
			55,500	51,000		49,900		49,300	
		Abnormal Gain	500	500	100	500	100	500	100
	55,000		55,000	50,500		49,400		48,800	

Statement of Cost for each Element

(Each	Bold	1/3	SM)
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Element of cost	Cost (Rs.)	Equivalent	Cost per unit
		Production	(Rs.)



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Material A:			
Transfer from Process-II	4,11,500		
Less: Scrap value of Normal Loss (2,500 × Rs. 3)	7,500		
	4,04,000	50,500	8
Material B	1,97,600	49,400	4
Wages	97,600	48,800	2
Overheads	48,800	48,800	1
	7,48,000		15

(Each Bold 1/3 M)

Process Cost Sheet

		(Rs.)
Opening WIP (for completion):		
Material- B (400 units × Rs. 4)	1	,600
Wages (800 units × Rs. 2)	1	,600
Overheads (800 units × Rs. 1)		800
	4	,000
Introduced and completely processed during the period (46,000 units × Rs. 15)	6,90	,000
Closing WIP:		
Material- A (5,000 units × Rs. 8)	40	,000
Material- B (3,500 units × Rs. 4)	14	,000
Wages (2,500 units × Rs. 2)	5	,000,
Overheads (2,500 units × Rs. 1)	2	,500
	61	,500
Abnormal Gain (500 units × Rs. 15)	7	,500
/Eas	h Dald 1	/2 MI

(Each Bold 1/3 M)

Process III A/c

Particulars	Units	Amount	Particulars	Units	Amount		
To Balance b/d	2,000	25,750	By Normal Loss	2,500	7,500		
To Process II A/c	53,000	4,11,500	By Process IV A/c (Rs. 6,90,000	48,000	7,19,750		
			+ Rs. 4000 + Rs. 25,750)				
To Direct Material		1,97,600	By Balance c/d	5,000	61,500		
To Direct Wages		97,600					
To Production OH		48,800					
To Abnormal Gain	500	7,500					
	55,500	7,88,750		55,500	7,88,750		

(Each Bold 1/3 M)

Answer:

*

(b)

Revised Sales Value = $\frac{\text{Desired Contribution}}{\text{Revised P/VRatio}^*} = \frac{0.40}{0.25} = 1.6$ **{4 M}**

This means sales value to be increased by 60% of the existing sales.

Revised P/V Ratio =
$$\frac{\text{Revised Contribution}}{\text{Revised Selling Price}} = \frac{0.80 - 0.60}{0.80} = 0.25 \text{ }1 \text{ M}$$

Required Sales Quantity =
$$\frac{\text{Desired Contribution}}{\text{Revised P / VRatio* x Revised Selling Price}} = \frac{0.40}{0.25 \times 0.80} = 2$$
 {1 M}

Therefore, Sales value to be increased by 60% and sales quantity to be doubled to offset the reduction in selling price.

Proof:

Let selling price per unit is Rs.10 and sales quantity is 100 units. **Data before change in selling price:**

(Rs.)

Since 1998

Sales (Rs.10 × 100 units)	1,000
Contribution (40% of 1,000)	400
Variable cost (balancing figure)	600
	(Bold 1 M)

Data after the change in selling price:

Selling price is reduced by 20% that means it became Rs. 8 per unit. Since, we have to maintain the earlier contribution margin i.e. Rs. 400 by increasing the sales quantity only. Therefore, the target contribution will be Rs. 400. The new P/V Ratio will be

	(Rs.)
Sales	8.00
Variable cost	6.00
Contribution per unit	2.00
P/V Ratio	25%
	(Bold 1 M)

Sales Value =
$$\frac{\text{DesiredContribution}}{\text{Revised P / VRatio}} = \frac{₹400}{0.25} = ₹1,600$$
 }{1 M}

Sales quantity = $\frac{\text{Sales value}}{\text{Selling price per unit}} = \frac{\text{₹1,600}}{\text{₹8}} = 200 \text{ units } \text{{1 M}}$

Answer 5:

(a) Total direct wages

= Rs. 42,000 + Rs. 54,000 + Rs. 48,000 = Rs. 1,44,000

Percentage absorption of production overhead on the basis of direct wages

$$=\frac{2,88,000}{1,44,000} \times 100 = 200\%$$

) Process-I A/c						
Particulars	Units	Amt.(Rs.)	Particulars	Units	Amt.(Rs.)	
To Materials	7,000	1,40,000	By Normal loss	350	3,500	
			(5% of 7,000 units)			
To Other materials	-	62,000	By Process-II*	6,600	3,35,955	
To Direct wages	-	42,000	By Abnormal loss*	50	2,545	
To Direct expenses	-	14,000				
To Production OH	-	84,000				
(200% of Rs. 42,000)						
	7,000	3,42,000		7,000	3,42,000	
(Each Bold 1/6 M)						

* Cost per unit = $\frac{\text{Rs.}(3,42,000-3,500)}{(7,000-350) \text{ units}}$ = Rs.50.9022

Process.	-II A	/c
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Particulars	Units	Amt.(Rs.)	Particulars	Units	Amt.(Rs.)	
To Process-I A/c	6,600	3,35,955	5 By Normal loss 660		6,600	
			(10% of 6,600 units)			
To Other materials	-	1,36,000	By Process-III**	5,200	5,63,206	
To Direct wages	-	54,000	By Abnormal loss**	740	80,149	
To Direct expenses	-	16,000				
To Production OH	-	1,08,000				
(200% of Rs 54,000)						
	6,600	6,49,955		6,600	6,49,955	

(Each Bold 1/6 M)

** Cost per unit = $\frac{\text{Rs.}(6,49,955-6,600)}{(6,600-660) \text{ units}} = \text{Rs.}108.3089$



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Process-III A/c						
Particulars Units Amt.(R		Amt.(Rs.)	Particulars	Units	Amt.(Rs.)	
To Process-I A/c	5,200	5,63,206	By Normal loss	260	2,600	
			(5% of 5,200 units)			
To Other materials	-	84,200	By Product-X***	4,800	8,64,670	
To Direct wages	-	48,000				
To Direct expenses	-	14,000	By Product-Z [#]	600	21,000	
To Production OH	-	96,000	(Rs. 35 × 600 units)			
(200% of Rs. 48,000)						
To Abnormal gain***	460	82,864				
	5,660	8,88,270		5,660	8,88,270	

(Each Bold 1/6 M)

*** Cost per unit = $\frac{\text{Rs.}(8,05,406-2,600-21,000)}{(5,200-260-600) \text{ units}}$ = Rs.180.1396

Realisable value = Rs. 135 - (85+15) = Rs. 35

(ii)		By-Product Process A/c			
Particulars	Units	Amt. (Rs.)	Particulars	Units	Amt. (Rs.)
To Process-III A/c	600	21,000	By Product-Z	600	81,000
To Processing cost	-	51,000			
To Selling expenses	-	9,000			
	600	81,000		600	81,000
(Each Bold 1/6 M					h Bold 1/6 M)

Answer:

(i)

(b)

Production Budget for the year 2013 by Quarters

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					IV	Total
	Sales demand(Unit)	18,000	22,000	25,000	27,000	92,000
Ι	Opening Stock	6,000	7,200	8,100	8,700	30,000
II	70% of Current Quarter's Demand	12,600	15,400	17,500	18,900	64,400
	30% of Following Quarter's Demand	6,600	7,500	8,100	7,400*	29,600
IV	Total Production(II &III)	19,200	22,900	25,600	26,300	94,000
V	Closing Stock (I + IV - Sales)	7,200	8,100	8,700	8,000	32,000

*Balancing Figure

(Each bold 1/5 M)

(ii) Break Even Point

P/V Ratio

= Fixed Cost ÷ PV Ratio

= Rs. 2,20,000 ÷ 13.75% = Rs. 16,00,000 or **40,000 units**.

= (Rs. 40 - Rs. 34.50 = Rs. 5.50) \div 40 \times 100 = 13.75%

(Or, Break Even Point = Fixed Cost ÷ Contribution = Rs. 2,20,000 ÷ Rs. 5.50 = **40,000 Units**) Total sales in the quarter II is 40,000 equal to BEP means BEP achieved in II quarter.

(4 M = Any 40,000 Units)

Answer 6:

(a) INSTALLATION OF COSTING SYSTEM

As in the case of every other form of activity, it should be considered whether it would be profitable to have a cost accounting system. Management of an organisation needs complete and accurate information to make decisions. A wellestablished Costing system should provide all relevant information as and when required by management as well as various stakeholders.

Before setting up a system of cost accounting the under mentioned factors should be studied:

- (a) **Objective:** The objective of costing system, for example whether it is being introduced for fixing prices or for establishing a system of cost control.
- (b) **Nature of Business or Industry:** The Industry in which business is operating. Every business industry has its own peculiarity and objectives. According to its cost information requirement cost accounting methods are

followed. For example, an oil refinery maintains process wise cost accounts to find out cost incurred on a particular process say in crude refinement process etc.

- (c) Organisational Hierarchy: Costing system should fulfill the information requirements of different levels of management. Top management is concerned with the corporate strategy, strategic level management is concerned with marketing strategy, product diversification, product pricing etc. Operational level management needs the information on standard quantity to be consumed, report on idle time etc.
- (d) **Knowing the product:** Nature of product determines the type of costing system to be implemented. The product which has by-products requires costing system which accounts for by-products as well. In case of perishable or short self- life products, marginal costing is appropriate to know the contribution and minimum price at which products could be sold.
- (e) Knowing the production process: A good costing system can never be established without the complete knowledge of the production process. Cost apportionment can be done on the most appropriate and scientific basis if a cost accountant can identify degree of effort or resources consumed in a particular process. This also includes some basic technical know-how and process peculiarity.
- (f) **Information synchronisation:** Establishment of a department or a system requires substantial amount of organisational resources. While drafting a costing system, information needs of various other departments should be taken into account. For example, in a typical business organisation accounts department needs to submit monthly stock statement to its lender bank, quantity wise stock details at the time of filing returns to tax authorities etc.
- (g) **Method of maintenance of cost records:** The manner in which Cost and Financial accounts could be inter-locked into a single integral accounting system and how the results of separate sets of accounts i.e. cost and financial, could be reconciled by means of control accounts.
- (h) **Statutory compliances and audit**: Records are to be maintained to comply with statutory requirements and applicable cost accounting standards to be followed.
- (i) Information Attributes: Information generated from the Costing system should possess all the attributes of information i.e. complete, accurate, timeliness, relevant etc. to have an effective management information system (MIS).

(1 M for each point for any five points)

Answer:

(b) Objectives of Budgetary Control System

- 1. **Portraying with precision the overall aims of the business** and determining targets of performance for each section or department of the business.
- 2. **Laying down the responsibilities** of each of the executives and other personnel so that everyone knows what is expected of him and how he will be judged. Budgetary control is one of the few ways in which an objective assessment of executives or department is possible.
- 3. **Providing a basis for the comparison** of actual performance with the predetermined targets and investigation of deviation, if any, of actual performance and expenses from the budgeted figures. This naturally helps in adopting corrective measures.
- 4. **Ensuring the best use of all available resources** to maximise profit or production, subject to the limiting factors. Since budgets cannot be properly drawn up without considering all aspects usually there is good co-ordination when a system of budgetary control operates.
- 5. **Co-ordinating the various activities** of the business, and centralising



control and yet enabling management to decentralise responsibility and delegate authority in the overall interest of the business.

- 6. **Engendering a spirit of careful forethought**, assessment of what is possible and an attempt at it. It leads to dynamism without recklessness. Of course, much depends on the objectives of the firm and the vigour of its management.
- 7. **Providing a basis for revision** of current and future policies.
- 8. Drawing up long range plans with a fair measure of accuracy.
- 9. **Providing a yardstick** against which actual results can be compared.

(1 M for each point for any five points)

Answer:

- (c) Assumptions underlying E.O.Q. : The calculation of economic order of material to be purchased is subject to the following assumptions :
 - (i) Ordering cost per order and carrying cost per unit per annum are known and they are fixed.
 - (ii) Anticipated usage of material in units is known.
 - (iii) Cost per unit of the material is constant and is known as well.
 - (iv) The quantity of material ordered is received immediately i.e. the lead time is zero.

(1.25 M each point)

Answer:

(d) Product Cost vis-à-vis Period cost

Product costs are those costs that are identified with the goods purchased or produced for resale. In a manufacturing organisation they are attached to the product and that are included in the inventory valuation for finished goods, or for incompleted goods. Product cost is also known as inventoriable cost. Under absorption costing method it includes direct material, direct labour, direct expenses, directly attributable costs (variable and non variable) and other production (manufacturing) overheads. Under marginal costing method Product Costs includes all variable production costs and the all fixed costs are deducted from the contribution. **}{2.5 M}**

Periods costs are the costs, which are not assigned to the products but are charged as expense against revenue of the period in which they are incurred. General Administration, marketing, sales and distributor overheads are recognized as period costs. **}{2.5 M}**

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