

Note: All questions are compulsory.

Question 1 (6 Marks)

$$(a) \text{ Labour Turnover by Replacment Method} = \frac{\text{No.of workers replaced during the quarter}}{\text{Average no.workers onroll during the quarter}}$$

$$\text{Or,} \quad 0.03 = \frac{\text{No.of workers replaced during the quarter}}{(990+1,010 \div 2)}$$

Or, No. of worker replaced during the quarter = $0.03 \times 1,000 = 30$ workers (2 marks)

(i) Labour Turnover by Separation Method (2 marks)

$$= \frac{\text{No.of workers replaced during the quarter}}{\text{Average no.workers onroll during the quarter}} \times 100$$

$$= \frac{\text{Worker at begining+Fresh recruitment+Replacements-workers at closing}}{\text{Average no.workers onroll during the quarter}} \times 100$$

$$= \frac{990+4030-1,010}{(990+1,010) \div 2} \times 100 = \frac{50 \text{ workers}}{1,000 \text{ workers}} \times 100 = 5\%$$

(ii) Labour Turnover by Flux Method (2 marks)

$$\frac{\text{No.of workers(Separated+ replaced+Fresh Recuriment) during the quarter}}{\text{Average no.workers onroll during the quarter}} \times 100$$

$$= \frac{50+30+40}{(990+1,010) \div 2} \times 100 = \frac{120 \text{ workers}}{1,000 \text{ workers}} \times 100 = 12 \%$$

Question 2 (6 marks)

Cash Budget for the month of October 2016 to December 2016 (Amount in lakhs)

Particulars	October(Rs.)	November (Rs.)	December(Rs.)
(i) Opening cash balance	10.00	14.25	21.25
(ii) Cash Sale (1/2 mark)	4.00 (10% of 40)	4.50 (10% of 45)	4.60 (10% of 46)
(iii) Cash collection for credit sale: (2 marks)			
-For August sale	15.75 (35x90% x50%)	-	-
-For September sale	18.00 (40x90% x 50%)	18.00 (40x 90% x 50%)	-

-For October sale	-	18.00 (40x90% x 50%)	18.00 (40x90% x 50%)
-For November sale	-	-	20.25 (40x90% x 50%)
Total cash collection from credit sales (iii)	33.75	36.00	38.25
Total Cash inflow	47.75	54.75	64.10
(iv) Payment to creditors: (1 ½ marks)			
-For September purchase	29.00 {{(80% OF Rs.40)-3}}	-	-
-For October purchase	-	29.00 {{(80% OF Rs.40)-3}}	-
-For November purchase	-	-	33.00 {{(80% OF Rs.45)-3}}
Total of payment made to creditors (iv)	29	29	33
(v) Payment of wages & salaries (1/2 mark)	3.00	3.00	3.00
(vi) Interim dividend (1/2 mark)	-	-	2.00
(vii) Installment for machinery (1/2 mark)	0.50	0.50	0.50
(viii) Administrative expenses (1/2 mark)	1.00	1.00	1.00
Total Cash outflow(B)	33.50	33.50	39.50
Closing cash balance (A-B)	14.25	21.25	24.60

Question 3 (8 marks)

Contract Account

Particulars	Amount (Rs.)	Amount (Rs.)	Particulars	Amount (Rs.)	Amount (Rs.)
To Materials (1/2 mark)		25,26,000	By material at site (1/2 mark)		50,000
To Direct wages (1 mark)	13,28,000		By Work in progress (1 mark)		
Add: outstanding	2,24,000	15,52,000	- Working n certified	1,00,00,000	
To Site expenses (1/2 mark)		9,60,000	- Working uncertified	12,00,000	1,12,00,000
To Postage and Stationery (1/2 mark)		29,600			
To Rates and taxes (1 mark)	25,600				
Less Advance	(1,400)	24,200			
To Fuel and power (1/2 mark)		8,46,000			
To Depreciation* (1 ½ mark)		9,80,300			
To Notional profit c/d (1mark)		37,05,900			
		1,12,50,000			1,12,50,000

*Depreciation

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| (i) On Machinery = {10% on (Rs.36,00,000 x 0.8)} | =Rs.2,88,000 |
| (ii) On Vehicles = 20% on Rs. 32,20,000 | =Rs. 6,44,000 |
| (iii) On Furniture = 15% on Rs.3,22,000 | =Rs.48,300 |
| | <u>=Rs.9, 80,300</u> |

Question 4 (8 marks)

Apportionment of Joint Costs (2 marks)

Particulars	A(Rs.)	B(Rs.)
Selling Price	16,000	8,000
Less: Estimated profit	4,000 (25% of Rs. 16,000)	1,600 (25% of Rs. 8,000)
Cost of sales	12,000	6,400
Less :Selling & Distribution exp . (Refer to working note)	267 (Rs.400 x2/3)	133 (Rs.400 x 1/3)
Less :Subsequent cost	5,000	3,000
Share of Joint cost	6,733	3,267

So, Joint cost of manufacture is to be distributed to A & B in the ratio of 6733: 3267

Statement showing Cost of Production of A and B

Elovements of cost	Joint Cost (3 marks)		Subsequent Cost (1 mark)		Total Cost(1 mark)	
	A	B	A	B	A	B
Material	3,367	1,633	3,000	1,500	6,367	3,133
Labour	2,020	980	1,400	1,000	3,420	1,980
Overheads	1,346	654	600	500	1,946	1,154
	Cost of Production				11,733	6,267

Working Note:

Calculation of Selling and Distribution Expenses(1 mark)

Particulars	(Rs.)
Total Sales Revenue (Rs. 16,000+Rs.8,000)	24,000
Less : Estimated profit(Rs. 4,000+Rs. 1,600)	(5,600)
Cost of sales	18,400
Less :Cost of production:	
-Joint Costs	(10,000)
-Subsequent costs (Rs.5,000+Rs.3,000)	(8,000)
Selling and Distribution expenses (Balancing figure)	400

Question 5 (8 marks)

Process I A/c (2 Marks)

Particulars	Total	Cost	Profit	Particulars	Total	Cost	Profit
To Opening Balance	1,50,000	1,50,000	-	By Transfer to Process II A/c	10,80,000	8,10,000	2,70,000
To Direct Materials	3,00,000	3,00,000	-				
To Direct Wages	2,24,000	2,24,000	-				
	6,74,000	6,74,000	-				
Less: Closing Stock	74,000	74,000	-				
Prime Cost	6,00,000	6,00,000	-				
To Factory Overheads	2,10,000	2,10,000	-				
Total Cost	8,10,000	8,10,000	-				
Profit @ 25% on transfer price	2,70,000	-	2,70,000				

	10,80,000	8,10,000	2,70,000		10,80,000	8,10,000	2,70,000
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Process II A/c (3 Marks)

Particulars	Total	Cost	Profit	Particulars	Total	Cost	Profit
To Opening Stock	1,80,000	1,50,000	30,000	By Transfer to Finished Stock A/c	22,50,000	15,15,000	7,35,000
To Transfer from Process I A/c	10,80,000	8,10,000	2,70,000				
To Direct Materials	3,15,000	3,15,000	-				
To Direct Wages	2,25,000	2,25,000	-				
	18,00,000	15,00,000	3,00,000				
Less: Closing Stock	90,000	75,000	15,000				
Prime Cost	17,10,000	14,25,000	2,85,000				
To Factory Overheads	90,000	90,000	-				
Total Cost	18,00,000	15,15,000	2,85,000				
Profit @ 20% on transfer price	4,50,000	-	4,50,000				
	22,50,000	15,15,000	7,35,000		22,50,000	15,15,000	7,35,000
WN - Profit element in closing stock = $3,00,000 / 18,00,000 \times 90,000 = 15,000$							

Finished Stock A/c (3 Marks)

Particulars	Total	Cost	Profit	Particulars	Total	Cost	Profit
To Opening Stock	4,50,000	2,85,000	1,65,000	By Sales	28,00,000	16,50,000	11,50,000
To Transfer from Process II A/c	22,50,000	15,15,000	7,35,000				
	27,00,000	18,00,000	9,00,000				
Less: Closing Stock	2,25,000	1,50,000	75,000				
Prime Cost	24,75,000	16,50,000	8,25,000				
To Factory Overheads	90,000	90,000	-				
Total Cost	25,65,000	17,40,000	8,25,000				
Profit	3,25,000	-	3,25,000				
	28,90,000	17,40,000	11,50,000		28,00,000	16,50,000	11,50,000
WN - Profit element in closing stock = $9,00,000 / 27,00,000 \times 2,25,000 = 75,000$							

Profit on Sale		
	Amount	Amount
Process I		2,70,000
Process II	4,50,000	
Add: Profit Provision	15,000	4,65,000
Finished Stock	3,25,000	
Add: Profit Provision	90,000	4,15,000
		11,50,000

Question 6 (6 marks)

(i)

$$\begin{aligned} \text{Total Fixed Cost} &= \text{`6,00,000} + \text{`20,00,000} + \text{`8,00,000} + \text{`2,00,000} \\ &= \text{`36,00,000} \end{aligned}$$

$$\text{Contribution per unit} = \text{`600} - \text{`470} = \text{`130}$$

$$\text{P/V Ratio} = \frac{\text{Contribution per unit}}{\text{Selling Price}} \times 100 = \frac{\text{`130}}{\text{`600}} \times 100 = 21.67\%$$

$$\begin{aligned} \text{Break-even Point} &= \frac{\text{Total Fixed Cost}}{\text{Contribution per unit}} \times 100 \\ &= \frac{\text{`36,00,000}}{\text{`130}} = 27,692.31 \text{ or } 27,693 \text{ units} \end{aligned}$$

2 marks

$$\text{Break-even Sales} = \frac{\text{Total Fixed Cost}}{\text{P/V Ratio}} = \frac{\text{`36,00,000}}{21.67\%} = \text{`1,66,12,829}$$

Calculation of Profit/ (loss):

$$\text{Total Contribution (`130} \times \text{35,000 units)} = \text{`45,50,000}$$

$$\text{Less: Fixed Cost} = \text{`36,00,000}$$

$$\text{Profit} = \text{`9,50,000}$$

(ii) Revised Selling Price = `600 – 5% of `600 = `570

$$\text{Revised Variable cost} = \text{`410}$$

$$\text{Revised Contribution} = \text{`570} - \text{`410} = \text{`160}$$

$$\text{Break-even Point} = \frac{\text{`36,00,000} + \text{`9,00,000}}{\text{`160}} = 28,125 \text{ units}$$

2 marks

(iii) Revised Selling Price = `600 + 5% of `600 = `630

$$\text{Revised Variable cost} = \text{`470} + \text{`5} = \text{`475}$$

$$\text{Revised Contribution} = \text{`630} - \text{`475} = \text{`155}$$

$$\text{Break-even Point} = \frac{\text{`36,00,000}}{\text{`155}} = 23,225.81 \text{ or } 23,226 \text{ units}$$

2 marks

Question 7 (8 marks)**(a) Working Notes :**

1. Total Kilometers to be run during the year 2016-17
 = 50km x 2 sides x 3trips x 25 days x 12 month x 6 buses = 5,40,000 Kilometers
 = 5,40,000km. x 48 passengers x 75% = 1,94,40,000 Passenger –km.

Operating Cost Sheet for the year 2016-17

Particulars		Total Cost(Rs.)
A.	Fixed Charges (1/2 mark for each cost)	
	Garage rent (Rs. 6,000 x 12 months)	72,000
	Salary of drivers (Rs.4,000 x 6 drivers x 12 months)	2,88,000
	Wages of Conductors (Rs. 1,600 x 6 conductor x 12 months)	1,15,200
	Wages of Clearance (Rs.1,000 x 6 clearance x 12 months)	72,000
	Manager's salary (Rs. 10,000 x 12 months)	1,20,000
	Road Tax ,Permit fee etc. (Rs.6,000 x 4 quarters)	24,000
	Office expenses (Rs. 2,500 x 12months)	30,000
	Depreciation (Rs.7,50,000 x 6 buses x 20 %)	9,00,000
	Insurance (Rs. 7,50,000 x 6 buses x 4%)	1,80,000
	Total (A)	18,01,200
B.	Variable Charges: (1/2 mark for each cost)	
	Repairs and Maintenance (Rs. 24,000 x 6 buses)	1,44,000
	Diesel {(5,40,000km. ÷ 6 km.)x Rs.66}	59,40,000
	Engine oils &lubricants {(Rs. 2000 ÷ 1000 km.) x 5,40,000km)	10,80,000
	Total (B)	71,64,000
	Total Cost (A+B)	89,65,200
	Add 33 ¹/₃ %Profit on takings or 50% on cost (1/2 mark)	44,82,600
C.	Total Takings (Total bus fare collection)	1,34,47,800
D.	Total Passenger-km.(Working Note 2) (1 ½ mark)	1,94,40,000
E.	Bus fare to be charged from each passenger per km. (C ÷ D)	0.6918
