

Note: All questions are compulsory.

Question 1 (8 marks)

Note: Joint Costs are apportioned based on the ratio of sales value at split-off point.

(1/2 mark for each calculation)

Particulars	A	B	C	D	TOTAL
1. Output in liters	8,000 liters	4,000 liters	2,000 liters	4,000 liters	
2. Sales Price per liter at split-off point	Rs. 15.00	Rs.6.00	Rs 3.00	Rs. 7.50	
3. Sal value at split-off point (1*2)	Rs.1,20,000	Rs. 24,000	Rs. 6,000	Rs. 30,000	Rs.1,80,000
4. Joint Cost apportioned in above ratio (120:24:6:30)	Rs.98,667	Rs.19,733	Rs.4,933	Rs.24,667	Rs.1,48,000
5. Profit/(Loss) if all products are sold at split-off point (3-4)	Rs.21,333	Rs.4,267	Rs.1,067	Rs.5,333	Rs.32,000
6. Further Processing Costs(given)	Rs.43,000	Rs.9,000	-	Rs.1,500	Rs.53,500
7. Final sales value(given)	Rs.1,72,000	Rs.25,000	Rs.6,000	Rs.45,000	Rs.2,48,500
8. Profit/(Loss) if all products are sold after further processing(7-4-6)	Rs.30,833	(Rs.3,733)	Rs.1,067	Rs.18,833	Rs.47,000
9. Additional Revenue from further processing(7-3)	Rs.52,500	Rs.1,000	NA	Rs.15,000	
10. Additional Processing Costs(given)	Rs.43,000	Rs.9,000	-	Rs.1,500	
11. Additional Profit/(Loss) from further processing(9-10)	Rs.9,500	(Rs.8,000)	NA	Rs.13,500	
12. Optimal Decision(based on 11 above)	Process Further	Sell at Split-off	Sell at Split-off	Process Further	
13. Sales Revenue as per Optimal Decision	Rs.1,72,500	Rs.24,000	Rs.6,000	Rs.45,000	Rs.2,47,500
14. Joint Costs as per Point 4 above	Rs.98,667	Rs.19,733	Rs.4,933	Rs.24,667	Rs.1,48,000
15. further processing Costs as per Optimal Decision (i.e. Only For A and D)	Rs.43,000	NIL	NIL	Rs.1,500	Rs.44,500
16. Profit as per Optimal Decision (13-14-15)	Rs.30,833	Rs.4,267	Rs.1,067	Rs.18,833	Rs.55,000

Alternatively, Profit as per Optimal Decision can also be Computed as under-

Particulars	A	B	C	D	TOTAL
13. Profit / (Loss) if all products are sold at split-off point (as per point 5 above)	Rs.21,333	Rs.4,267	Rs.1,067	Rs.5,333	Rs.32,000
14. Additional profit from further processing (only for A & D) (as per point 11 above)	Rs.9,500	NA	NA	Rs.13,500	Rs.23,000

15. Profit as per Optimal Decision (13 + 14)	Rs.30,833	Rs.4,267	Rs.1,067	Rs.18,833	Rs.55,000
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Question 2 (8 Marks)

Working Notes:

(i) Total Productive hours = Estimated Working hours – Machine Maintenance hours
= 2,200 hours – 200 hours = 2,000 hours

(ii) Depreciation per annum = $\frac{\text{₹ } 10,000 - \text{₹ } 1,000}{10 \text{ years}} = \text{₹ } 900$

4 marks

(iii) Chemical solution cost per annum = ₹ 20 × 50 weeks = ₹ 1,000

(iv) Wages of attendants (per annum) = $\frac{\text{₹ } 120 \times 50 \text{ weeks}}{6 \text{ machines}} = \text{₹ } 1,000$

Calculation of Machine hour rate

Particulars	Amount (per annum)	Amount (per hour)
A. Standing Charge		
(i) Wages of attendants	1,000	
(ii) Departmental and general works overheads	2,000	
Total Standing Charge	3,000	
Standing Charges per hour $\left(\frac{3,000}{2,000}\right)$		1.5
B. Machine Expense		
(iii) Depreciation	900	0.45
(iv) Electricity $\left(\frac{\text{₹ } 0.09 \times 16 \text{ units} \times 1,900 \text{ hours}}{2,000 \text{ hours}}\right)$	-	1.37
(v) Chemical solution	1,000	0.50
(vi) Maintenance cost	1,200	0.60
Machine operating cost per hour (A + B)		4.42

4 marks

Question 3 (4 Marks)

Treatment of over and under absorption of overheads are:-

- (i) **Writing off to costing P&L A/c:**– Small difference between the actual and absorbed amount should simply be transferred to costing P&L A/c, if difference is large then investigate the causes and after that abnormal loss shall be transferred to costing P&L A/c.
- (ii) **Use of supplementary Rate:** Under this method the balance of under and over absorbed overheads may be charged to cost of W.I.P., finished stock and cost of sales proportionately with the help of supplementary rate of overhead.
- (iii) **Carry Forward to Subsequent Year:** Difference should be carried forward in the expectation that next year the position will be automatically corrected. This would really mean that costing data of two years would be wrong.

Question 4 (10 Marks)

Stores Leger Control Account (2 mark)

Dr.	()	Cr.	()
To Balance b/d	12,60,000	By Work-in-progress control A/c	67,20,000
To General ledger adjustment A/c	67,20,000	By Overhead control A/c	8,40,000
To Work-in progress Control A/c	33,60,000	By Overhead control A/c (Shortage)	2,52,000
		By Balance c/d	35,28,000
	1,13,40,000		1,13,40,000

W.I.P Control A/c (2 marks)

Dr.	()	Cr.	()
To Balance b/d	25,20,000	By Stores ledger control A/c	33,60,000
To Stores ledger control A/c	67,20,000	By Costing P&L A/c (Cost of Sales) (Balancing figure)	1,58,88,000
To Direct wages Control A/c	25,20,000		
To Overhead control A/c	90,08,000	By Balance c/d	15,20,000
	2,07,68,000		2,07,68,000

Costing Profit and Loss A/c (1 mark)

Dr.	()	Cr.	()
To W.I.P Control A/c	1,58,88,000	By General Ledger Adj. A/c	
To General ledger Adj. A/c	19,06,560		
(Profit)		Cost of sales	1,58,88,000
		Add 12% Profit	19,06,560
	1,77,94,560		1,77,94,560

Financial Profit and Loss A/c(2 marks)

Dr.	()	()	()	Cr.	()
To Opening stock : Stores	12,60,000		By Sales		1,77,94,560
W.I.P	<u>25,20,000</u>	37,80,000	By Income from investment		4,00,000
To Purchases		67,20,000	By Closing stock:		
To Wages		29,40,000	Stores	35,28,000	
To Overhead		95,50,000	W.I.P	<u>15,20,000</u>	50,48,000
To Loss on sale of fixed assets		8,40,000	By loss		5,87,440

		2,38,30,000			2,38,30,000
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Reconciliation Statement(2 marks)

Dr.	Cr.
	()
Profit as per Cost Accounts	19,06,560
Add: Income from investments	4,00,000
	23,06,560
Less : Loss on sale of fixed assets	8,40,000
Under absorption of overheads (Refer to Working Note)	20,54,000
Loss as per Financial Accounts	5,87,440

Working Notes:

Overhead Control Account (1 mark)

Dr.	Cr.
	()
To General Ledger Adj. A/c	95,50,000
To Stores Ledger Control A/c	2,52,000
To Stores ledger control A/c	8,40,000
To Wages control A/c Indirect wages (` 29,40,000- `25,20,000)	4,20,000
	1,10,62,000
By W.I.P control A/c	90,08,000
By Balance c/d (under absorption of overheads)	20,54,000
	1,10,62,000

Question 5 (8 marks)

Preparation of Cost Sheet /Cost Statement (3 marks)

Particulars	Amount (Rs.)
Materials	26,80,000
Wages	17,80,00
Prime Cost	44,60,000
Add : Factory expenses (20% of Rs. 44,60,00)	8,92,000
Factory Cost	53,52,000
Add :Administrative expenses (10% of Rs. 52,52,000)	5,35,200
Cost of Production	58,57,200
Less closing stock $\left(\frac{\text{Rs. } 58,87,200}{52,000 \text{ units}} \right) \times 2,000 \text{ units}$	(2,26,431)
Cost of Goods Sold	56,60,769
Add :Selling expenses (Rs. 10 x 50,000 units)	5,00,000
Cost of Sales	61,60,769
Profit (Balancing figure)	39,231
Sales Value	62,00,000

(it has been assumed that administrative expenses are related with production activities)

Costing Profit and Loss Account (2 marks)

Particulars	Amount (Rs.)	Particulars	Amount (Rs.)
To Material	26,80,000	By Sales	62,00,000
To Wages	17,80,000	By Closing Stock	2,26,431
To Factory expense	8,92,000		

To Administrative expenses	5,35,200		
To Selling expenses	5,00,000		
To Profit (Balancing figure)	39,231		
	64,26,431		64,26,431

Reconciliation of profit as per Cost Accounts and as per Financial Accounts (3 marks)

Particulars	Amount (Rs.)
Profit as per Cost Accounts	39,231
Additions:	
Administrative expenses (Over –absorbed)(Rs. 5,35,200 –Rs.4,80,200)	55,000
Selling expenses (Overcharged)(Rs. 5,00,000 –Rs. 2,50,00)	2,50,000
Dividend received	20,000
	3,64,231
Deductions :	
Factory expenses (Under – absorbed)(Rs. 9,50,000 –Rs.8,92,000)	58,000
Closing stock (Over – valued)(Rs. 2,26,431 –Rs.1,50,000)	76,431
Preliminary expenses written off	50,000
	1,84,431
Profit as per Financial Accounts	1,79,800

(Reconciliation statement may also be prepared by taking financial profit as base.)

Question 6 (4 Marks) (2 marks each point)

1. According to Job costing, costs are collected and accumulated according to jobs. Each job or unit of production is treated as a separate entity for the purpose of costing. Job costing may be employed when jobs are executed for different customers according to their specifications.
2. Batch costing is a form of job costing, a lot of similar units which comprises the batch may be used as a cost unit for ascertaining cost. Such a method of costing is used in case of pharmaceutical industry, readymade garments, industries manufacturing parts of TV, radio sets etc.

Question 7 (8 Marks)

Overhead Distribution Statement (2 marks)

	Production Departments		Service Departments	
	Machine Shops	Packing	General Plant	Stores
Allocated Overheads:	()	()	()	()
Indirect labour	80,000	60,000	40,000	1,10,000
Maintenance Material	34,000	16,000	21,000	28,000
Misc. supplies	15,000	29,000	9,000	6,000
Supervisor's salary	--	--	1,60,000	--
Cost & payroll salary	--	--	8,00,000	--
Total allocated overheads	1,29,000	1,05,000	10,30,000	1,44,000
Add: Apportioned Overheads (As per Schedule below)	18,43,500	7,01,250	2,27,750	7,31,500
	19,72,500	8,06,250	12,57,750	8,75,500

Schedule of Apportionment of Overheads (2 marks)

Item of Cost	Basis	Production Departments		Service Departments	
		Machine	Packing	General	Stores

		Shops (₹)	(₹)	Plant (₹)	(₹)
Power	HP hours (7 : 1 : - : 2)	5,46,000	78,000	--	1,56,000
Rent	Floor space (5 : 2 : 1 : 4)	3,00,000	1,20,000	60,000	2,40,000
Fuel & Heat	Radiator sec. (3 : 6 : 2 : 4)	1,20,000	2,40,000	80,000	1,60,000
Insurance	Investment (10 : 3 : 1 : 2)	75,000	22,500	7,500	15,000
Taxes	Investment (10 : 3 : 1 : 2)	52,500	15,750	5,250	10,500
Depreciation	Investment (10 : 3 : 1 : 2)	7,50,000	2,25,000	75,000	1,50,000
		18,43,500	7,01,250	2,27,750	7,31,500

(b) Re-distribution of Overheads of Service Departments to Production Departments: (4 marks)

Let, the total overheads of General Plant = 'a' and the total overheads of Stores = 'b' a = 12,57,750 + 0.3b(i)

b = 8,75,500 + 0.2a.....(ii)

Putting the value of 'b' in equation no. (i)

$$a = 12,57,750 + 0.3 (8,75,500 + 0.2a)$$

$$\text{Or } a = 12,57,750 + 2,62,650 + 0.06a$$

$$\text{Or } 0.94a = 15,20,400 \quad \text{Or } a = 16,17,447 \text{ (appx.)}$$

Putting the value of a = 16,17,447 in equation no. (ii) to get the value of 'b'

$$b = 8,75,500 + 0.2 \times 16,17,447 = 11,98,989 \text{ (appx.)}$$

Particulars	Total (₹)	Machine Shops (₹)	Packing (₹)
Allocated and Apportioned overheads as per Primary distribution	27,78,750	19,72,500.00	8,06,250.00

⊕ - General Plant	16,17,447	8,08,723.50 $(16,17,447 \times \frac{5}{10})$	4,85,234.10 $(16,17,447 \times \frac{3}{10})$
- Stores	11,98,989	5,99,494.50 $(11,98,989 \times 50\%)$	2,39,797.80 $(11,98,989 \times 20\%)$
		33,80,718	15,31,281.9
