

**Note: All questions are compulsory.**

**Question 1 (8 Marks)**

a. Treatment of over and under absorption of overheads are:-

**(4 marks)**

- (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.

b. These contracts provide for the payment by the contractee of the actual cost of construction plus a stipulated profit, mutually decided between the two parties. **(4 marks)**

*The main features of these contracts are as follows:*

1. The practice of cost-plus contracts is adopted in the case of those contracts where the probable cost of the contracts cannot be ascertained in advance with a reasonable accuracy.
2. These contracts are preferred when the cost of material and labour is not steady and the contract completion may take number of years.
3. The different costs to be included in the execution of the contract are mutually agreed, so that no dispute may arise in future in this respect. Under such type of contracts, contractee is allowed to check or scrutinize the concerned books, documents and accounts.
4. Such a contract offers a fair price to the contractee and also a reasonable profit to the contractor.  
The contract price here is ascertained by adding a fixed and mutually pre-decided component of profit to the total cost of the work.

**Question 2 (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	58,87,200
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
<b>Profit (Balancing figure)</b>	<b>39,231</b>
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		
	<b>64,26,431</b>		<b>64,26,431</b>

#### 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
	<b>3,64,231</b>
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
	<b>1,84,431</b>
<b>Profit as per Financial Accounts</b>	<b>1,79,800</b>

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

#### 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			
		<b>1,12,50,000</b>			<b>1,12,50,000</b>

\*Depreciation

(i) On Machinery ={10% on (Rs.36,00,000 x0.8)}

=Rs.2,88,000

(ii) On Vehicles =20% on Rs. 32,20,000  
 (iii) On Furniture =15% on Rs.3,22,000

=Rs. 6,44,000  
 =Rs.48,300  
 =Rs.9, 80,300

**Question 4 (8 marks)**

**Creditors A/c (1 mark)**

Dr.		Cr.	
Particulars	(`)	Particulars	(`)
To Bank A/c	5,80,000	By Balance b/d	25,000
To Balance c/d	40,000	By Stores ledger control A/c (Materials purchased)(Bal. figure)	5,95,000
	6,20,000		6,20,000

**Stores Ledger Control A/c (2 mark)**

Dr.		Cr.	
Particulars	(`)	Particulars	(`)
To Balance b/d	40,000	By WIP control A/c (Balancing figure)	5,70,000
To Creditors A/c (Materials purchased)	5,95,000	By Balance c/d	65,000
	6,35,000		6,35,000

**Work-in-Process Control A/c (3 marks)**

Dr.		Cr.	
Particulars	(`)	Particulars	(`)
To Balance b/d	50,000	By Finished goods control A/c (Balancing figure)	10,05,000
To Stores ledger control A/c	5,70,000	By Balance c/d:	
To Wages control A/c (80% of ` 4,00,000)	3,20,000	- Material	35,000
		- Labour (` 50* × 400 hours)	20,000
		- Factory Oh (` 20** × 400 hours)	8,000
To Factory Overhead control A/c	1,28,000		63,000
	10,68,000		10,68,000

\* Direct Labour Hour Rate = ` 3,20,000/ 6,400 hours = ` 50

\*\* Factory Overhead Rate = ` 20,80,000/ 1,04,000 = ` 20

**Wages Control A/c (1 mark)**

Dr.		Cr.	
Particulars	(`)	Particulars	(`)
To Bank A/c	4,00,000	By WIP control A/c (80% of ` 4,00,000)	3,20,000
		By Factory OH Control A/c (20% of ` 4,00,000)	80,000
	4,00,000		4,00,000

**Factory Overhead Control A/c (1 mark)**

Dr.			Cr.
Particulars	( ` )	Particulars	( ` )
To Wages control A/c	80,000	By WIP control A/c ( ` 20 × 6,400 hours)	1,28,000
To Bank A/c (Indirect expenses)	60,000	By Balance c/d	12,000
	1,40,000		1,40,000

**Question 5 (5 marks)(1 mark each)**

$$\begin{aligned} \text{Selling Price per unit} &= \frac{\text{Margin of Safety in Rupee value}}{\text{Margin of Safety in Quantity}} \\ &= \frac{\text{` 3,75,000}}{15,000 \text{ units}} = \text{` 25} \end{aligned}$$

$$\begin{aligned} \text{(ii) Profit} &= \text{Sales Value} - \text{Total Cost} \\ &= \text{Selling price per unit} \times (\text{BEP units} + \text{MoS units}) - \text{Total Cost} \\ &= \text{` 25} \times (5,000 + 15,000) \text{ units} - \text{` 3,87,500} \\ &= \text{` 5,00,000} - \text{` 3,87,500} = \text{` 1,12,500} \end{aligned}$$

$$\begin{aligned} \text{(iii) Profit/ Volume (P/V) Ratio} &= \frac{\text{Profit}}{\text{Margin of Safety in Rupee value}} \times 100 \\ &= \frac{\text{` 1,12,500}}{\text{` 3,75,000}} \times 100 = 30\% \end{aligned}$$

$$\begin{aligned} \text{(iv) Break Even Sales (in Rupees)} &= \text{BEP units} \times \text{Selling Price per unit} \\ &= 5,000 \text{ units} \times \text{` 25} = \text{` 1,25,000} \end{aligned}$$

$$\begin{aligned} \text{(v) Fixed Cost} &= \text{Contribution} - \text{Profit} \\ &= \text{Sales Value} \times \text{P/V Ratio} - \text{Profit} \\ &= (\text{` 5,00,000} \times 30\%) - \text{` 1,12,500} \\ &= \text{` 1,50,000} - \text{` 1,12,500} = \text{` 37,500} \end{aligned}$$

**Question 6 (5 marks)**

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

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

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

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

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

**Calculation of Profit/ (loss):**

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

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

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

$$\text{(ii) Revised Selling Price} = \text{`600} - 5\% \text{ of } \text{`600} = \text{`570}$$

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

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

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

$$\text{(iii) Revised Selling Price} = \text{`600} + 5\% \text{ of } \text{`600} = \text{`630}$$

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

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

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

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

$$\begin{aligned} \text{(i) Total Productive hours} &= \text{Estimated Working hours} - \text{Machine Maintenance hours} \\ &= 2,200 \text{ hours} - 200 \text{ hours} = 2,000 \text{ hours} \quad \textbf{(1 mark)} \end{aligned}$$

$$\text{(ii) Depreciation per annum} = \frac{10000 - 1000}{10 \text{ years}} = 900$$

$$\text{(iii) Chemical Solution cost per annum} = 20 * 50 \text{ weeks} = 1000$$

$$\text{(iv) Wages of the attendants (per annum)} = \frac{120 * 50 \text{ weeks}}{6 \text{ machines}} = 1000$$

**Calculation of Machine hour rate**

Particulars	Amount (per Annum)	Amount (per hour)
A. Standing Charges <b>(2 marks)</b>		

(i)	Wages of attendants	1,000	
(ii)	Department and general works overheads	2,000	
Total Standing Charges		3,000	
Standing Charges per hour $\left[ \frac{3,000}{2,000} \right]$			1.5
<b>B. Machine Expenses (4 marks)</b>			
(iii)	Depreciation	900	0.45
(iv)	Electricity $\left[ \frac{\text{Rs. } 0.09 \times 16\text{units} \times 1,900\text{hours}}{2,000\text{hours}} \right]$	-	1.37
(v)	Chemical solution	1,000	0.50
(vi)	Maintenance cost	1,200	0.60
<b>Machine operating cost per hour (A+B) (1 mark)</b>			<b>4.42</b>

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