

**MOCK TEST PAPER – 2**  
**INTERMEDIATE: GROUP – I**  
**PAPER – 3: COST AND MANAGEMENT ACCOUNTING**  
**SUGGESTED ANSWERS/HINTS**

**1. (a) Workings:**

**(i) Computation of productive hours**

Actual hours worked	5,34,000
Less: Unproductive training hours	<u>18,000</u>
Actual productive hours	<u>5,16,000</u>

**(ii) Productive hours lost:**

Loss of potential productive hours + Unproductive training hours  
= 1,20,000 + 18,000 = 1,38,000 hours

**(iii) Loss of contribution due to unproductive hours:**

$$= \frac{\text{Sales value}}{\text{Actual productive hours}} \times \text{Total unproductive hours}$$

$$= \frac{\text{₹ 99,63,960}}{5,16,000 \text{ hrs}} \times 1,38,000 \text{ hours} = \text{₹ 26,64,780}$$

Contribution lost for 1,38,000 hours =  $\frac{\text{₹ 26,64,780}}{100} \times 20 = \text{₹ 5,32,956}$

**Computation of profit forgone on account of employee turnover**

	(₹)
Contribution foregone (as calculated above)	5,32,956
Settlement cost due to leaving	52,584
Recruitment cost	32,088
Selection cost	15,300
Training costs	36,588
<b>Profit foregone</b>	<b>6,69,516</b>

**(b) Contract Account**

Particulars	(₹)	Particulars	(₹)
To Material issued	7,53,000	By Machine (Working note 1)	7,38,000
" Wages	16,96,800	" Material (in hand)	1,06,200
" Foreman's salary	2,43,900	" Works cost (balancing figure)	31,47,000
" Machine	7,80,000		
" Supervisor's salary (₹ 24,000 × 9)/2	1,08,000		

"	Administrative charges	4,09,500		
		39,91,200		39,91,200
"	Works cost	31,47,000	"	Value of work certified
			"	Cost of work uncertified (Working Note 2)
"	Costing P&L A/c (Notional profit)	6,39,750		7,86,750
		37,86,750		37,86,750

**Working notes:**

1. Written down value of Machine:

$$= \frac{\text{₹ } 7,80,000 - \text{₹ } 45,000}{7 \text{ years}} \times \frac{146 \text{ days}}{365 \text{ days}} = \text{₹ } 42,000$$

Hence, the value of machine after the period of 146 days = ₹ 7,80,000 – ₹ 42,000 = ₹ 7,38,000

2. The cost of 2/3<sup>rd</sup> of the contract is ₹ 31,47,000

$$\therefore \text{Cost of 100\% " " " " } \frac{\text{₹ } 31,47,000}{2} \times 3 = \text{₹ } 47,20,500$$

$\therefore$  Cost of 50% of the contract which has been certified by the architect is ₹ 23,60,250. Also, the cost of the contract, which has been completed but not certified by the architect is ₹ 7,86,750.

- (c) The marginal cost (variable cost) of ₹ 17,600 is apportioned over the joint products P and Q in the ratio of their physical quantity i.e. 200 : 240

$$\text{Marginal cost for Product P : ₹ } 17,600 \times \frac{200}{440} = \text{₹ } 8,000$$

$$\text{Marginal cost for Product Q : ₹ } 17,600 \times \frac{240}{440} = \text{₹ } 9,600$$

The fixed cost of ₹ 15,600 is apportioned over the joint products P and Q in the ratio of their contribution margin i.e. 160 : 48 (Refer to working note)

$$\text{Product P : ₹ } 15,600 \times 160/208 = \text{₹ } 12,000$$

$$\text{Product Q : ₹ } 15,600 \times 48/208 = \text{₹ } 3,600$$

**Working Note:**

Computation of contribution margin ratio

Products	Sales revenue (₹)	Marginal cost (₹)	Contribution (₹)
P	24,000	8,000	16,000
Q	14,400	9,600 (Refer to above)	4,800

Contribution ratio is 160 : 48

(d) **Master Budget for the year ending \_\_\_\_\_**

Particulars		Amount (₹)	Amount (₹)
Sales			1,20,00,000
Less: Cost of production:			
Direct materials (60% of ₹ 1,20,00,000)		72,00,000	
Direct wages (20 workers × ₹ 2,250 × 12 months)		5,40,000	
Prime Cost		77,40,000	
Fixed Factory Overhead:			
Works manager's salary (7,500 × 12)	90,000		
Foreman's salary (6,000 × 12)	72,000		
Depreciation	1,89,000		
Light and power	45,000	3,96,000	
Variable Factory Overhead:			
Stores and spares (2.5% of ₹ 1,20,00,000)	3,00,000		
Repairs and maintenance	1,20,000		
Sundry expenses (10% of ₹ 5,40,000)	54,000	4,74,000	
Works Cost			86,10,000
Gross Profit (Sales – Works cost)			33,90,000
Less: Adm., selling and distribution expenses			5,40,000
Net Profit			28,50,000

## 2. (a)

**Calculation of Labour overtime hours**Total hours required for production

X5	(5,000 x 2 hrs)	10,000
X6	(4,000 x 3 hrs)	12,000
X7	(3,000 x 4 hrs)	12,000
Wireless Charger	(15,000 x 0.40 hrs)	6,000
		40,000
Hours available		(35,000)
<b>Overtime</b>		<b>5,000</b>

**Statement of Profitability**

Particulars	Amount (₹)	Amount (₹)
<b>Sales</b>		
X5 (5,000 x 8,000)	4,00,00,000	
X6 (4,000 x 9,000)	3,60,00,000	
X7 (3,000 x 12,000)	3,60,00,000	
Wireless Charger [(12,000 x 1,350) + (3,000 x 1,500)]	2,07,00,000	<b>13,27,00,000</b>

<b>Less: Variable cost</b>		
Material:		
X5 (5,000 x 2,000)		
X6 (4,000 x 2,500)		
X7 (3,000 x 3,000)		
Wireless Charger (15,000 x 300)	3,35,00,000	
Labour:		
X5 (5,000 x 1,000)		
X6 (4,000 x 1,500)		
X7 (3,000 x 2,000)		
Wireless Charger (15,000 x 200)		
Overtime (5,000 x 1,000)	2,50,00,000	
Other variable overheads	1,25,00,000	7,10,00,000
<b>Contribution</b>		<b>6,17,00,000</b>
Less: Fixed Cost		1,00,00,000
<b>Profit</b>		<b>5,17,00,000</b>

**(b) Workings:**

**1. Calculation of Standard Qty. of Explosives and Detonators for actual output:**

	Particulars	Iron ore	Overburden (OB)	Total
<b>SME:</b>				
A	Actual Output	20,000 tonne	58,000 M3	
B	Standard Qty per unit	2.4 kg./tonne	1.9 kg./M3	
<b>C</b>	<b>Standard Qty. for actual production [A×B]</b>	<b>48,000 kg.</b>	<b>1,10,200 kg.</b>	<b>1,58,200 kg.</b>
<b>Detonators:</b>				
D	Standard Qty per unit	2 pcs/ tonne	2 pcs/ M3	
<b>E</b>	<b>Standard Qty. for actual production [A×D]</b>	<b>40,000 pcs.</b>	<b>1,16,000 pcs</b>	<b>1,56,000 pcs</b>

**2. Calculation of Actual Price per unit of materials:**

Material	Quantity [A]	Amount (₹) [B]	Rate (₹) [C = B÷A]
SME	1,67,200 kg.	63,53,600	38.00
Detonators	1,18,400 pcs	24,27,200	20.50

**(i) Computation of material price variance:**

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Material Price Variance = Actual Qty. × (Std. Price - Actual Price)

SME = 1,67,200 kg. × (₹40 – ₹38) = ₹ 3,34,400 (F)

$$\begin{aligned}\text{Detonators} &= 1,18,400 \text{ pcs} \times (\text{₹}20 - \text{₹}20.5) = \text{₹} 59,200 \text{ (A)} \\ \text{Total} &= \text{₹} 2,75,200 \text{ (F)}\end{aligned}$$

**(ii) Computation of material quantity variance:**

$$\begin{aligned}\text{Material Qty. Variance} &= \text{Std. Price} \times (\text{Std. Qty for actual output} - \text{Actual Qty.}) \\ \text{SME} &= \text{₹}40 \times (1,58,200 \text{ kg.} - 1,67,200 \text{ kg.}) = \text{₹} 3,60,000 \text{ (A)} \\ \text{Detonators} &= \text{₹}20 \times (1,56,000 \text{ pcs} - 1,18,400 \text{ pcs}) = \text{₹} 7,52,000 \text{ (F)} \\ \text{Total} &= \text{₹} 3,92,000 \text{ (F)}\end{aligned}$$

**(iii) Computation of material cost variance:**

$$\begin{aligned}\text{Material cost variance} &= \text{Std. cost} - \text{Actual Cost} \\ \text{Or, (Std. Price} \times \text{Std. Qty)} - (\text{Actual Price} \times \text{Actual Qty.}) \\ \text{SME} &= (\text{₹}40 \times 1,58,200 \text{ kg}) - (\text{₹}38 \times 1,67,200 \text{ kg.}) \\ &= \text{₹}63,28,000 - \text{₹}63,53,600 = \text{₹} 25,600 \text{ (A)} \\ \text{Detonators} &= (\text{₹}20 \times 1,56,000 \text{ pcs}) - (\text{₹}20.50 \times 1,18,400 \text{ pcs}) \\ &= \text{₹}31,20,000 - \text{₹}24,27,200 = \text{₹} 6,92,800 \text{ (F)} \\ \text{Total} &= \text{₹} 6,67,200 \text{ (F)}\end{aligned}$$

**3. (a) (i) Computation of Value of Inventory as on 30th September 2021:**

Date	Particulars	Units	WAM (₹)	FIFO (₹)	LIFO (₹)
01-07-21	Opening Stock	12,500	75,00,000 (₹600×12,500)	75,00,000 (₹600×12,500)	75,00,000 (₹600×12,500)
01-07-21	Purchases	25,000	1,43,25,000 (₹573×25,000)	1,43,25,000 (₹573×25,000)	1,43,25,000 (₹573×25,000)
30-09-21	Purchases	12,500	78,75,000 (₹630×12,500)	78,75,000 (₹630×12,500)	78,75,000 (₹630×12,500)
01-07-21 to 30-09-21	Issues/ Consumption (Balancing figure)	34,000	<b>2,01,96,000*</b>	<b>1,98,19,500**</b>	<b>2,01,94,500***</b>
30-09-21	Closing Stock	16,000	<b>95,04,000</b>	<b>98,80,500</b>	<b>95,05,500</b>

$$\text{Weighted average rate} = \frac{\text{₹} 75,00,000 + \text{₹} 1,43,25,000 + \text{₹} 78,75,000}{(12,500 + 25,000 + 12,500) \text{ units}} = \text{₹} 594$$

$$* \quad \text{₹} 594 \times 34,000 = \text{₹} 2,01,96,000 \quad 1$$

$$** \quad \text{₹} 600 \times 12,500 + \text{₹} 573 \times 21,500 = \text{₹} 1,98,19,500$$

$$*** \quad \text{₹} 630 \times 12,500 + \text{₹} 573 \times 21,500 = \text{₹} 2,01,94,500$$

(ii) **Computation of Profit or Loss for the Quarter ended 30th September 2021**

Particulars	WAM (₹)	FIFO (₹)	LIFO (₹)
Sales	2,19,30,000	2,19,30,000	2,19,30,000
Less: Consumption	2,01,96,000	1,98,19,500	2,01,94,500
Less: Administrative Exp.	5,62,500	5,62,500	5,62,500
<b>Profit or Loss</b>	<b>11,71,500</b>	<b>15,48,000</b>	<b>11,73,000</b>

(b) **Statement Showing “Budgeted Cost per unit of the Product”**

Activity	Activity Cost (Budgeted) (₹)	Activity Driver	No. of Units of Activity Driver (Budget)	Activity Rate (₹)	Deposits	Loans	Credit Cards
ATM Services	10,40,000	No. of ATM Transaction	2,60,000	4.00	7,80,000	---	2,60,000
Computer Processing	13,00,000	No. of Computer processing Transaction	26,00,000	0.50	9,75,000	1,30,000	1,95,000
Issuing Statements	26,00,000	No. of Statements	6,50,000	4.00	18,20,000	2,60,000	5,20,000
Customer Inquiries	4,68,000	Telephone Minutes	9,36,000	0.50	2,34,000	1,17,000	1,17,000
Budgeted Cost	<b>54,08,000</b>				<b>38,09,000</b>	<b>5,07,000</b>	<b>10,92,000</b>
Units of Product (as estimated in the budget period)					76,180	16,900	18,200
Budgeted Cost per unit of the product					<b>50</b>	<b>30</b>	<b>60</b>

**Working Note:**

Activity	Budgeted Cost (₹)	Remark
ATM Services:		
(a) Machine Maintenance	5,20,000	– All fixed, no change.
(b) Rents	2,60,000	– Fully fixed, no change.
(c) Currency Replenishment Cost		
Total	<u>2,60,000</u> 10,40,000	– Doubled during budget period.
Computer Processing	3,25,000	– ₹ 3,25,000 (half of ₹ 6,50,000) is fixed and no change is expected.
	9,75,000	– ₹ 3,25,000 (variable portion) is expected to increase to three times the current level.
Total	<u>13,00,000</u>	

Issuing Statements	23,40,000 2,60,000	- Existing. - 2.60 lakh statements are expected to be increased in budgeted period. For every single increase of statement, one rupee is the budgeted increase.
Total	26,00,000	
Computer Inquiries	4,68,000	- Estimated to increase by 80% during the budget period. (₹ 2,60,000 x 180%)
Total	4,68,000	

**4. (a) Workings:**

**1. Maximum number of bottles that can be processed in a batch:**

$$= \frac{5,000 \text{ ltrs}}{\text{Bottle volume}}$$

Large		Medium		Small	
Qty (ltr)	Max bottles	Qty (ltr)	Max bottles	Qty (ml)	Max bottles
3	1,666	1.5	3,333	600	8,333

For simplicity of calculation small fractions has been ignored.

**2. Number of batches to be run:**

		Large	Medium	Small	Total
A	Demand	3,00,000	7,50,000	20,00,000	
B	Bottles per batch (Refer WN-1)	1,666	3,333	8,333	
C	No. of batches [A÷B]	180	225	240	645

For simplicity of calculation small fractions has been ignored.

**3. Quantity of Material-W and Material C required to meet demand:**

	Particulars	Large	Medium	Small	Total
A	Demand (bottle)	3,00,000	7,50,000	20,00,000	
B	Qty per bottle (Litre)	3	1.5	0.6	
C	Output (Litre) [A×B]	9,00,000	11,25,000	12,00,000	32,25,000
D	Material-W per litre of output (Litre)	14	14	14	
E	Material-W required (Litre) [C×D]	1,26,00,000	1,57,50,000	1,68,00,000	4,51,50,000
F	Material-C required per litre of output (ml)	25	25	25	
G	Material-C required (Litre) [(C×F)÷1000]	22,500	28,125	30,000	80,625

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4. No. of Man-shift required:

		Large	Medium	Small	Total
A	No. of batches	180	225	240	645
B	Hours required per batch (Hours)	2	2	2	
C	Total hours required (Hours) [A×B]	360	450	480	1,290
D	No. of shifts required [C÷8]	45	57	60	162
E	<b>Total manshift [D×20 workers]</b>	<b>900</b>	<b>1,140</b>	<b>1,200</b>	<b>3,240</b>

For simplicity of calculation small fractions has been ignored.

5. Power consumption in Kwh

		Large	Medium	Small	Total
<b>For processing</b>					
A	No. of batches	180	225	240	645
B	Hours required per batch (Hours)	1.75	1.75	1.75	1.75
C	Total hours required (Hours) [A×B]	315	393.75	420	1,128.75
D	Power consumption per hour (Kwh)	90	90	90	90
E	<b>Total Power consumption (Kwh) [C×D]</b>	<b>28,350</b>	<b>35,437.5</b>	<b>37,800</b>	<b>1,01,587</b>
F	<b>Per batch consumption* (Kwh) [E÷A]</b>	<b>157.5</b>	<b>157.5</b>	<b>157.5</b>	<b>157.5</b>
<b>For set-up</b>					
G	Hours required per batch (Hours)	0.25	0.25	0.25	0.25
H	Total hours required (Hours) [A×G]	45	56.25	60	161.25
I	Power consumption per hour (Kwh) [20%×90]	18	18	18	18
J	<b>Total Power consumption (Kwh) [H×I]</b>	<b>810</b>	<b>1,012.5</b>	<b>1,080</b>	<b>2,902.5</b>
K	<b>Per batch consumption* (Kwh) [J÷A]</b>	<b>4.5</b>	<b>4.5</b>	<b>4.5</b>	<b>4.5</b>

\* Per batch consumption can be directly calculated as [Hours required per batch x Power consumption per hour]

Calculation of Profit/ loss per batch:

	Particulars	Large	Medium	Small	Total
A	Demand (bottle)	3,00,000	7,50,000	20,00,000	30,50,000
B	Price per bottle (₹)	150	90	50	
C	<b>Sales value (₹) [A×B]</b>	<b>4,50,00,000</b>	<b>6,75,00,000</b>	<b>10,00,00,000</b>	<b>21,25,00,000</b>

	<b>Direct Material cost:</b>				
E	Material-W (₹) [Qty in WN-3 × ₹0.50]	63,00,000	78,75,000	84,00,000	2,25,75,000
F	Material-C (₹) [Qty in WN-3 × ₹1,000]	2,25,00,000	2,81,25,000	3,00,00,000	8,06,25,000
G	[E+F]	<b>2,88,00,000</b>	<b>3,60,00,000</b>	<b>3,84,00,000</b>	<b>10,32,00,000</b>
H	Direct Wages (₹) [Man-shift in WN-4 × ₹880]	7,92,000	10,03,200	10,56,000	28,51,200
I	Packing cost (₹) [A×₹3]	9,00,000	22,50,000	60,00,000	91,50,000
	<b>Power cost (₹)</b>				
J	For processing (₹) [WN-5 × ₹7]	1,98,450	2,48,062.5	2,64,600	7,11,112.5
K	For set-up time (₹) [WN-5 × ₹7]	5,670	7,087.5	7,560	20,317.5
L	[J+K]	<b>2,04,120</b>	<b>2,55,150</b>	<b>2,72,160</b>	<b>7,31,430</b>
M	Other variable cost (₹) [No. of batch in WN-2 × ₹30,000]	54,00,000	67,50,000	72,00,000	1,93,50,000
N	<b>Total Variable cost per batch [G+H+I+L+M]</b>	<b>3,60,96,120</b>	<b>4,62,58,350</b>	<b>5,29,28,160</b>	<b>13,52,82,630</b>
O	<b>Profit/ loss before fixed cost [C-N]</b>	<b>89,03,880</b>	<b>2,12,41,650</b>	<b>4,70,71,840</b>	<b>7,72,17,370</b>
P	Fixed Cost				4,90,00,000
Q	<b>Net Profit [O-P]</b>				<b>2,82,17,370</b>

Computation of Economic Batch Quantity (EBQ):

$$EBQ = \sqrt{\frac{2 \times D \times S}{C}}$$

D = Annual Demand for the Product = Refer A below

S = Set-up cost per batch = Refer D below

C = Carrying cost per unit per annum = Refer E below

	<b>Particulars</b>	<b>Large</b>	<b>Medium</b>	<b>Small</b>
A	<b>Annual Demand (bottle)</b>	<b>3,00,000</b>	<b>7,50,000</b>	<b>20,00,000</b>
B	Power cost for set-up time (₹) [Consumption per batch in WN-5 × ₹7]	31.50	31.50	31.50
C	Other variable cost (₹)	30,000	30,000	30,000
D	<b>Total Set-up cost [B+C]</b>	<b>30,031.50</b>	<b>30,031.50</b>	<b>30,031.50</b>
E	<b>Holding cost:</b>	<b>1.00</b>	<b>1.00</b>	<b>1.00</b>
F	<b>EBQ (Bottle)</b>	<b>1,34,234</b>	<b>2,12,243</b>	<b>3,46,592</b>

(b)

**Cost Sheet (For the month)**

Level of Capacity	30%		100%	
	30,000 units		1,00,000 units	
	Per unit (₹)	Total (₹)	Per unit (₹)	Total (₹)
<b>Works Cost</b>	<b>1,900.00</b>	<b>5,70,00,000</b>	<b>1,550.00</b>	<b>15,50,00,000</b>
Add: Fixed general administration expenses	25.00	7,50,000	7.50	7,50,000
Add: Fixed marketing expenses	41.67	12,50,000	12.50	12,50,000
Add: Variable distribution cost	150.00	45,00,000	150.00	1,50,00,000
Add: Special Costs:				
- Refreshments	-	-	5.00	5,00,000
- Gift items costs	-	-	150.00	1,50,00,000
- Television programme sponsorship cost	-	-	100.00	1,00,00,000
- Customers' prizes*	-	-	5.00	5,00,000
<b>Cost of sales</b>	<b>2,116.67</b>	<b>6,35,00,000</b>	<b>1,980.00</b>	<b>19,80,00,000</b>
Profit (Balancing figure)	633.33	1,90,00,000	520.00	5,20,00,000
<b>Sales revenue</b>	<b>2,750.00</b>	<b>8,25,00,000</b>	<b>2,500.00</b>	<b>25,00,00,000</b>

**\*Customers' prize cost:**

	Amount (₹)
1 <sup>st</sup> Prize	2,50,000
2 <sup>nd</sup> Prize	1,25,000
3 <sup>rd</sup> Prize	50,000
Consolation Prizes (3 × ₹ 25,000)	75,000
<b>Total</b>	<b>5,00,000</b>

5. (a)

Dr.		Process-A Account				Cr.	
Particulars		Units	(₹)	Particulars		Units	(₹)
To	Material introduced	15,000	4,20,000	By	Normal Loss A/c [(6% of 15,000 units) x ₹ 15.40]	900	13,860
"	Additional material	--	36,400	"	Process-B A/c (₹ 41.31* × 14,100 units)	14,100	5,82,540
"	Direct wages	--	56,000				
"	Production OH	--	84,000				
		15,000	5,96,400			15,000	5,96,400

**\*Cost per unit of completed units**

$$= \frac{\text{Total Cost} - \text{Realisable value from normal loss}}{\text{Inputs units} - \text{Normal loss units}} = \frac{₹ 5,96,400 - ₹ 13,860}{15,000 \text{ units} - 900 \text{ units}} = ₹ 41.31$$

Dr. <b>Process-B Account</b>			Cr.		
Particulars	Units	(₹)	Particulars	Units	(₹)
To Process-A A/c	14,100	5,82,540	By Normal Loss A/c [(#13.44% of 14,100 units) x ₹ 28]	1,895	53,060
" Additional material	--	31,500	" Process-C A/c (₹ 56 × 12,205 units)	12,205	6,83,480
" Direct wages	--	49,000			
" Production OH	--	73,500			
	14,100	7,36,540		14,100	7,36,540

#Calculation for % of wastage in process 'B':

Let's consider number of units lost under process 'B' = b

$$\text{Now, } \frac{\text{Total Cost - Realisable value from normal loss}}{\text{Inputs units - Normal loss units}} = 56$$

$$\frac{₹ 7,36,540 - ₹ 28b}{14,100 \text{ units} - b} = ₹ 56$$

$$₹ 7,36,540 - ₹ 28b = ₹ 7,89,600 - ₹ 56b$$

$$28b = ₹ 53,060 \Rightarrow b = 1,895 \text{ units}$$

$$\% \text{ of wastage} = \frac{1,895 \text{ units}}{14,100 \text{ units}} = 13.44\%$$

Dr. <b>Process-C Account</b>			Cr.		
Particulars	Units	(₹)	Particulars	Units	(₹)
To Process-B A/c	12,205	6,83,480	By Normal Loss A/c [(5% of 12,205 units) x ₹ 14]	610	8,540
" Additional material	--	28,000	" Finished Stock A/c (₹ 69.68 <sup>§</sup> × 12,000 units)	12,000	8,36,160
" Direct wages	--	42,000			
" Production OH	--	63,000			
" Abnormal gain (₹ 69.68 <sup>§</sup> × 405 units)	405	28,220			
	12,610	8,44,700		12,610	8,44,700

<sup>§</sup>Cost per unit of completed units

$$= \frac{\text{Total Cost - Realisable value from normal loss}}{\text{Inputs units - Normal loss units}} = \frac{₹ 8,16,480 - ₹ 8,540}{12,205 \text{ units} - 610 \text{ units}} = ₹ 69.68$$

(b) **Computation of Comprehensive Machine Hour Rate per Machine**

Particulars	Per Annum (₹)	Per Hour (₹)
<b><u>Standing Charges:</u></b>		
Depreciation (Working Note 2)	50,000	
Factory Rent (₹ 5,000 x 12 months / 4)	15,000	
Lighting of Factory (₹ 3,000 x 12 months / 4)	9,000	
Operator Wages (₹ 10,000 x 12 months / 2)	60,000	
Repairs and maintenance (₹ 2,000 x 4)	8,000	
Insurance premium (₹ 5,00,000 x 3%)	15,000	
Forman's salary (₹ 2,500 x 12 x 1/6 / 4)	1,250	
Other factory overhead (₹ 40,000 / 4)	<u>10,000</u>	
	<u>1,68,250</u>	
Standing Charges per hour (₹ 1,68,250 / 1,500 hours)		112.17
<b><u>Running Charges:</u></b>		
Power (80 units x ₹ 150 / 100)		<u>120.00</u>
<b>Comprehensive Machine Hour Rate</b>		<u><u>232.17</u></u>

**Working Notes:**

**1. Computation of Total Operative Hours**

Total Running Hours:	2,200
Less: Unproductive hours lost during repairs	50
Less: Unproductive hours Lost while Job Setting	<u>650</u>
<b>Total Operative Hours</b>	<b><u>1,500</u> per annum</b>

**2. Calculation of Annual Depreciation**

Annual Depreciation	=	$\frac{\text{Purchase Cost} - \text{Estimated Scrap Value}}{\text{Effective Life in Years}}$
	=	$\frac{\text{₹ 5,00,000} - \text{₹ 50,000}}{9 \text{ Years}}$
	=	₹ 50,000

**6. (a)**

Advantages	Disadvantages
1. Time rate is guaranteed while there is opportunity for increasing earnings by increasing production.	1. Incentive is not so strong as with piece rate system. In fact the harder the worker works, the lesser he gets per piece.
2. The system is equitable in as much as the employer gets a direct return for his efforts in improving production methods and providing better equipment.	2. The sharing principle may not be liked by employees.
	1

(b)

S. No.	Industry	Method of costing
(i)	Sugar manufacturing	Process costing
(ii)	Bridge Construction	Contract Costing
(iii)	Advertising	Job costing
(iv)	Car Assembly	Multiple Costing (Combination of any method)

(c)

S. No.	Service industry	Unit of cost
(i)	Electricity Supply service	Kilowatt- hour (kWh)
(ii)	Hospital	Patient per day, room per day or per bed, per operation etc.
(iii)	Cinema	Per ticket.
(iv)	Hotels	Guest Days or Room Days

(d) **Advantages of Integrated Accounts are as follows:**

- (i) **No need for Reconciliation-** The question of reconciling costing profit and financial profit does not arise, as there is only one figure of profit.
- (ii) **Less efforts-** Due to use of one set of books, there is a significant saving in efforts made.
- (iii) **Less time consuming-** No delay is caused in obtaining information as it is provided from books of original entry.
- (iv) **Economical process-** It is economical also as it is based on the concept of "Centralisation of Accounting function".

(e)

S. No.	Fixed Budget	Flexible Budget
1.	It does not change with actual volume of activity achieved. Thus it is known as rigid or inflexible budget.	It can be re-casted on the basis of activity level to be achieved. Thus it is not rigid.
2.	It operates on one level of activity and under one set of conditions. It assumes that there will be no change in the prevailing conditions, which is unrealistic.	It consists of various budgets for different levels of activity.
3.	Here as all costs like - fixed, variable and semi-variable are related to only one level of activity so variance analysis does not give useful information.	Here analysis of variance provides useful information as each cost is analysed according to its behaviour.
4.	If the budgeted and actual activity levels differ significantly, then the aspects like cost ascertainment and price fixation do not give a correct picture.	Flexible budgeting at different levels of activity facilitates the ascertainment of cost, fixation of selling price and tendering of quotations.
5.	Comparison of actual performance with budgeted targets will be meaningless specially when there is a difference between the two activity levels.	It provides a meaningful basis of comparison <sup>1</sup> of the actual performance with the budgeted targets.