

**Q1 a) Select the most appropriate option and rewrite the full sentence (Any Ten)**

**(10Marks)**

1. In production of furniture wood is a \_\_\_\_\_ material.  
 a. Direct      b. Indirect      c. Semi variable      d. Hazardous
2. In fashion industry, fabric thread and buttons are \_\_\_\_\_ material for making clothing.  
 a. Direct      b. Indirect      c. Semi variable      d. Hazardous
3. The \_\_\_\_\_ cost of using a company vehicle for a personal trip is the revenue the company could have earned by renting it out.  
a. Sunk Cost      b. Relevant Cost      c. Irrelevant Cost       d. Opportunity Cost
4. The \_\_\_\_\_ level is the ideal quantity to order to minimize both ordering and holding costs.  
 a. EOQ      b. Maximum      c. Minimum      d. Danger
5. In ABC analysis, \_\_\_\_\_ items typically represent items with moderate or intermediate value and significance compared to A items but more than C items.  
a. Category A       b. Category B      c. Category C      d. Category D
6. \_\_\_\_\_ assumes that the oldest inventory is sold first and that the newest inventory is left in stock  
 a. FIFO      b. LIFO      c. Weighted Average Method.      d. FIFA
7. In \_\_\_\_\_, employees are compensated based on the quantity or number of units they produce or tasks they complete.  
 a. Piece work plan      b. Halsey Premium Plan      c. Rowan System      d. Gantt's Task
8. The \_\_\_\_\_ is a labour payment plan that considers both quantity or output and time efficiency.  
a. Piece work plan      b. Halsey Premium Plan       c. Rowan System      d. Gantt's Task
9. Royalty paid is a part of \_\_\_\_\_  
 a. Prime Cost      b. Factory Cost      c. Administrative cost      d. Selling Cost
10. Store keepers salary is a part of \_\_\_\_\_  
a. Prime Cost       b. Factory Cost      c. Administrative cost      d. Selling Cost
11. Net profit as per cost records is Rs.15000 Interest on Investment not recorded in cost books is Rs. 3000. Calculate profit as per financial records.  
a. Rs. 15000      b. Rs. 3000       c. Rs. 18000      d. Rs. 12000
12. Net profit as per cost records is Rs.15000. Bad debts debited in financial records is Rs. 3000. Calculate profit as per financial records.  
a. Rs.15000      b. Rs. 3000      c. Rs. 18000       d. Rs.12000

Q1 (b) Match the Columns (Any 10).

(10 Marks)

Group A	Group B
<input checked="" type="checkbox"/> 1) Bank Charges	<input checked="" type="checkbox"/> a) Selling Overheads 11
<input checked="" type="checkbox"/> 2) Coding System	<input checked="" type="checkbox"/> b) Individual bonus plan 6
<input checked="" type="checkbox"/> 3) Ordering Cost	<input checked="" type="checkbox"/> c) Administrative cost 1
<input checked="" type="checkbox"/> 4) Economic Order Quantity	<input checked="" type="checkbox"/> d) Service cost centre 8
<input checked="" type="checkbox"/> 5) Idle Time	<input checked="" type="checkbox"/> e) Facilitates entry collation 2
<input checked="" type="checkbox"/> 6) Rowan Premium Plan	<input checked="" type="checkbox"/> f) Excluded in cost book 12
<input checked="" type="checkbox"/> 7) Over Absorbed Overheads	<input checked="" type="checkbox"/> g) Chargeable expenses 9
<input checked="" type="checkbox"/> 8) Quality Control	<input checked="" type="checkbox"/> h) Absorbed overheads less Actual overheads 7
<input checked="" type="checkbox"/> 9) Prime Cost	<input checked="" type="checkbox"/> i) Goods inspection expenses 3
<input checked="" type="checkbox"/> 10) Loose tools written off	<input checked="" type="checkbox"/> j) Power failure 5
<input checked="" type="checkbox"/> 11) Upkeep of delivery Vans	<input checked="" type="checkbox"/> k) Size of purchase order 4
<input checked="" type="checkbox"/> 12) Loss by Fire	<input checked="" type="checkbox"/> l) Factory Overheads 10



Q2A

M/S Ashish Manufacturing Company.

Cost Sheet for the year ended on 31<sup>st</sup> March, 2022

Particulars.	Product M [P = 6000 S = 4500]		Product N [P = 15000 S = 13500]	
	Amount	C.P.U	Amount	C.P.U
<u>Direct Cost</u>				
Direct material	18,00,000	300	54,00,000	360
Direct Labour.	10,80,000	180	22,50,000	150
Direct expenses.	7,20,000	120	36,00,000	240
<b>PRIME COST.</b>	36,00,000	600	1,12,50,000	750
<u>Add Factory overheads.</u>				
Factory expenses [20% on P.C]	7,20,000	120	22,50,000	150
<b>WORKS COST</b>	43,20,000	720	1,35,00,000	900
<u>Add Office &amp; Administrative OH</u>				
office expenses [25% on Works Cost]	10,80,000	180	33,75,000	225
<b>COST OF PRODUCTION.</b>	54,00,000	900	1,68,75,000	1125
<u>Add opening stock of F.W.</u>	-	-	-	-
<u>less closing stock of F.W.</u>				
[Product M → 900 × 1500]	(13,50,000)			
[Product N → 1125 × 1500]			(16,87,500)	
<b>COST OF GOODS SOLD.</b>	40,50,000	900	1,51,87,500	
<u>Add Selling &amp; Dist<sup>n</sup> OH.</u>				
Selling exp.	2,02,500	45	8,10,000	60
<b>COST OF SALES. 80%.</b>	42,52,500	945	1,59,97,500	1,185
profit [20%]	10,63,125	236.25	39,99,375	296.25
<b>SALES. 100</b>	53,15,625	1,181.25	1,99,96,875	1481.25





Q2B(1)

Store Ledger under weighted Average method.

Date	Receipts.			Issues.			Balance.		
	Qty	Rate	Amt	Qty	Rate	Amt	Qty	Rate	Amt
Sep. 2023									
1	-	-	-	-	-	-	7875	10.00	78,750
9	-	-	-	3255	10	32,550	4620	10.00	46,200
17	4830	8.40	40,572				9450	9.1822	86,772
18	-	-	-	2415	9.18	22,170	7035	9.18	64,602
20	-	-	-	3045	9.18	27,953	3990	9.19	36,649
22	2520	9.00	22,680	-	-	-	6510	9.11	59,329
30	-	-	-	4935	9.11	44,958	1575	9.11	14,348

value of closing stock is 1575 units of ₹ 14,348

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Q2B(11)

Machine Hour Rate.

particulars:	Amt [P.a.]	Rate per Hour.
<u>Standing charges.</u>		
oil & Lubrication [7500 x 4]	30,000	
Consumable stores. [1000 x 12]	12,000	
Foreman's salary [6000 x 12 x $\frac{1}{6}$ ]	12,000	
Cotton waste. [5000 x 4]	20,000	
Total Standing charges	74,000	
Standing charges per Hour = $\frac{T.S.C.}{\text{Total Hours in year}} = \frac{74,000}{10,000}$		7.4
<u>Running charges.</u>		
Depreciation [WN 1]		10
power [WN 2]		10
<u>Total machine Hour Rate.</u>		27.4

$$\text{Depreciation} = \frac{9,50,000 + 75,000 - 25,000}{10 \text{ years}}$$

$$= ₹ 1,00,000 \text{ per year.}$$

1,00,000 → 10,000 hrs.  
 ? ← 1 hr

Dep<sup>n</sup> = ₹10 per hour.

② Power

unit      Rate      Hour  
 1      0.5  
 20      ?      1  
 10

Q3 A (i)

	800	1000	2000	4000	6000
Annual Demand.	10,000	10,000	10,000	10,000	10,000
purchase price	2800	2760	2720	2680	2640
Total purchase cost	2,80,00,000	2,76,00,000	2,72,00,000	2,68,00,000	2,64,00,000
No of order.	12.5	10	5	2.5	1.666
ordering Cost per order	1800	1800	1800	1800	1800
Total ordering Cost - [No of order × O.C.P.O.]	22,500	18000	9000	4500	3,000
C.C.P.V.P.O [20% × P.P]	560	552	544	536	528
order size	800	1000	2000	4000	6000
Total Carrying Cost [ $\frac{1}{2} \times O.S \times C.C.P.V.P.O$ ]	2,24,000	2,76,000	5,44,000	10,72,000	15,84,000
Total cost [TPC + TOC + TCC]	2,82,46,500	2,78,94,000	2,77,53,000	2,78,76,500	2,79,87,000

From the above computations the best quantity to order is 2000 tonne.

Q3 (A) (ii)

① Material Turnover Ratio =  $\frac{\text{Material Consumed during the year}}{\text{Average Stock of material}}$

$$\text{Material R} = \frac{1,00,000 + 4,50,000 - 50,000}{75,000} = \frac{5,00,000}{75,000} = 6.67 \text{ Times.}$$

$$\text{Material S} = \frac{2,00,000 + 5,75,000 - 75,000}{1,37,500} = \frac{7,00,000}{1,37,500} = 5.09 \text{ Times.}$$

$$\textcircled{2} \text{ Inventory Holding period} = \frac{\text{No of Days in Year}}{\text{MTR}}$$

$$\text{Material R} = \frac{365}{6.67} = 54.72 \text{ days. } \approx 55 \text{ days}$$

$$\text{Material S} = \frac{365}{5.09} = 71.71 \text{ days. } \approx 72 \text{ days.}$$

$\textcircled{3}$  Decision : Material S is slow moving materials. because its rate of turnover is lower.

### Q3(B) Primary Distribution Overheads

Particulars	Basis	Total	Production Dept			Service Dept	
			A	B	C	D	E
Direct material	given	60,000	-	-	-	25,000	35,000
Direct Wages	given	40,000	-	-	-	25,000	15,000
Lighting	No of Light point [16:20:12:7:5]	13,500	3600	4500	2700	1575	1125
Contribution to P.F	Direct Wages. [14:18:10:5:3]	16,250	4550	5850	3250	1625	975
Labour welfare Expenses.	No of employees [9:11:6:5:4]	18,900	4860	5940	3240	2700	2160
Insurance of plant & machinery	value of machine [9:17:7:4:3]	15,000	3375	6375	2625	1500	1125
Depn on Building	Floor Area [20:30:15:13:12]	56,250	12,500	18,750	9375	8125	7500
<b>Total Primary Distribution Overheads</b>		<b>2,19,900</b>	<b>28,885</b>	<b>41,415</b>	<b>21,190</b>	<b>65,525</b>	<b>62,885</b>



Ex(आम) → (-)    Income(आम) +  
 Ex(उत्प) → (+)    Income(उत्प) (-)

Q4 (i) Reconciliation Statement

particulars.	Amount	Amount
Net loss as per Cost Record.		(2,45,000)
<u>Add</u> :- Factory overheads over recovered	30,000	
Dep <sup>n</sup> over charged in Cost	34,000	
Interest credited in financial Account	7,000	
Notional salary charged in Cost Account	10,000	81,000
		(1,64,000)
<u>less</u> :- Distribution overheads under recovered	20,000	
Administration overheads under recovered	27,500	
Baddebts w/off in financial Account	14,500	
preliminary expenses w/off in financial Account	4,500	(66,500)
Net loss As per financial Book		(2,30,500)

Q4(A) 11)

Statement showing Earnings & Cost.

particulars.	A	B
Basic wages	400	520
D.A [50%]	200	260
overtime [w.N-1]	30	
Gross wages.	630	780
<u>less</u> Employee Contribution to P.F		
A [400 x 8%]	32	
B [520 x 8%]		41.6
<u>less</u> Employee Contribution to ESI		
A [400 x 2%]	8	
B [520 x 2%]		10.4
Net wages	590	728

working note: ①

overtime is paid double of Basic wages & D.A.

<u>A</u>	Amt	Hours.
	600	400
	?	10
₹ 15		

$$\text{Overtime} = 15 \times 2 = ₹ 30$$

## II Statement showing Labour Cost.

Particulars	A	B
Basic wages	400	520
D.A [50%]	200	260
Employer Contribution to P.F		
A [400 × 8%]	32	
B [520 × 8%]		41.6
Employer Contribution to ESI		
A [400 × 2%]	8	10.4
B [520 × 2%]		
Total Labour Cost	640	832
Labour Cost per Hour.	$\frac{640}{400} = 1.6$	$\frac{832}{400} = 2.08$

## III Statement showing allocation of wages to Jobs.

	Job X	Job Y	Job Z
Labour Cost	256	192	192
A [40:30:30]			
Labour Cost	208	291.2	332.8
B [25:35:40]			
Overtime.	464	483.2	30 554.8





Q4(B)

Standard  
1 hr  $\rightarrow$  250 units.

Actual  
180 hours  $\rightarrow$  50,000 units.

Rate per hour = 300,

Deduction Allowance = ₹30 per hour.

Solve

$$\begin{aligned} \text{① Time Rate} &= \text{Total Hours worked} \times \text{Rate per hour} + \text{D.A} \\ &= 180 \times 300 + 30 \times 180 \\ &= ₹ 54000 + 5400 \\ &= ₹ 59,400 \end{aligned}$$

$$\begin{aligned} \text{② Piece Rate} &= \text{piece wage rate per unit} \times \text{Total units produced} + \text{D.A} \\ &= 1.2 \times 50,000 + 30 \times 180 \\ &= ₹ 60,000 + 5400 \\ &= ₹ 65,400 \end{aligned}$$

piece wage rate per unit

Standard

Hours	Rate	unit.
1	300	250
		1

(1.2)

- ③ T.A - 200 hours.  
T.T - 180 hours.  
T.S - 20 hours.  
R.P.H - 300  
D.A. per hour = 30

Hrs	unit
1	250
7	50,000

[200hrs]

Halsey premium plan:

$$\begin{aligned} \text{Earnings} &= [\text{T.T} \times \text{RPH}] + \frac{1}{2} [\text{T.S} \times \text{R.P.H}] + \text{D.A} \\ &= [180 \times 300] + \frac{1}{2} [20 \times 300] + 30 \times 180 \\ &= 54000 + 3000 + 5400 \end{aligned}$$

$$\text{Earnings} = ₹ 62,400$$

#### ④ Rowan Premium System:

$$\begin{aligned}\text{Earnings} &= [TT \times RPH] + \frac{TT}{TA} [T.S \times R.P.H] + D.A \\ &= (180 \times 300) + \frac{180}{200} [20 \times 300] + 30 \times 180 \\ &= 54000 + 5400 + 5400 \\ \text{Earnings} &= ₹ 64,800\end{aligned}$$

#### ⑤ Gantt Task Bonus System.

$$\begin{aligned}\text{Efficiency \%} &= \frac{\text{Actual output}}{\text{Std output}} \times 100 \\ &= \frac{50,000}{45,000} \times 100 \\ &= 111.11\%\end{aligned}$$

Standard	
1 hr	→ 250 units.
180 hrs	→ 45000 units.

$$\text{Normal piece Rate per unit} = ₹ 1.2$$

Gantt task Bonus plan

- production below standard - Guaranteed Time Rate.
- production equal to standard - 120% of Time Rate.
- production above standard - 120% (or higher) of piece rate for the entire output

$$\begin{aligned}\text{Rate per unit} &= 1.2 \times 120\% \\ &= 1.44.\end{aligned}$$

$$\begin{aligned}\text{Earnings} &= \text{Rate per unit} \times \text{Total unit produced} + D.A. \\ &= 1.44 \times 50,000 + 30 \times 180 \\ &= 72000 + 5400 \\ &= ₹ 77400\end{aligned}$$