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SUGGESTED SOLUTION

CA INTERMEDIATE

SUBJECT- COSTING

Test Code – CIM 8613

BRANCH - () (Date :)

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ANSWER - 1

In case of escalation clause in a contract, a contractor is paid for the any increase in price of materials and rate of labours which are beyond the control of the contractor. Any increase in the cost due to inefficiencies in usage of the materials and labour are not admissible. Thus any increase in cost due to usage in excess of standard quantity or hours are not paid.

(i) Statement Showing Additional claim due to Escalation clause.

	Standard Qty/Hours	**Std. Rate (Rs.)**	**Actual Rate (Rs.)**	**Variation in Rate (Rs.)**	**Escalation claim (Rs.)**
	(a)	**(b)**	**(c)**	**(d) = (c – b)**	**(e) = (a × d)**
Material :					
A	3,000	1,000	1,100	+ 100	+ 3,00,000
B	2,400	800	700	– 100	– 2,40,000
C	500	4,000	3,900	– 100	– 50,000
D	100	30,000	31,500	+1500	+ 1,50,000
Material escalation claim					1,60,000
Labour :					
L_1	60,000	15	18	+ 3	+ 1,80,000
L_2	40,000	30	35	+ 5	+ 2,00,000
					3,80,000

(5 MARKS)

Statement Showing Final Contract Price

	(Rs.)	**(Rs.)**
Agreed contract price		1,50,00,000
Add : Agreed escalation claim :		
Material Cost	1,60,000	
Labour Cost	3,80,000	5,40,000
Final Contract Price		**1,55,40,000**

(1 MARK)

(ii) Contract Account

Dr. **Cr.**

Particulars		**(Rs.)**	**Particulars**	**(Rs.)**
To Material :			By Contractee's A/c.	1,55,40,000
A – (3,400 × Rs. 1,100)	37,40,000			
B – (2,300 × Rs. 700)	16,10,000			
C – (600 × Rs. 3,900)	23,40,000			
D – (90 × Rs. 31,500)	28,35,000	1,05,25,000		
To Labour :				

L_1 – (56,000 × Rs. 18)	10,08,000			
L_2 – (38,000 × Rs. 35)	13,30,000	23,38,000		
To Other expenses		13,45,000		
To Estimated Profit		13,32,000		
		1,55,40,000		1,55,40,000

(4 MARKS)

ANSWER – 2

ANSWER - A

(i) Calculation of Economic Order Quantity

EOQ = $\sqrt{\frac{2AO}{C}} = \sqrt{\frac{2 \times 12{,}000\ units \times Rs.1{,}800}{Rs.640 \times 18.75\ /100}}$ = 600 units

(1 MARK)

(ii) Evaluation of Profitability of Different Options of Order Quantity

When EOQ is ordered

	(Rs.)
Purchase Cost (12,000 units × Rs. 640)	76,80,000
Ordering Cost $\left[\frac{A}{Q} \times O - (12{,}000\ units\ /600\ units) \times Rs.1{,}800\right]$	36,000
Carrying Cost $\left(\frac{Q}{2} \times C \times i - 600\ units\ \times Rs.640\ \times {}^{1}/_{2} \times 18.75/100\right)$	36,000
Total Cost	77,52,000

(b) When Quantity Discount is accepted

	(Rs.)
Purchase Cost (12,000 units × Rs. 608)	72,96,000
Ordering Cost $\left[\frac{A}{Q} \times O\ (12{,}000units/\ 3000\ units) \times Rs.1{,}800\right]$	7,200
Carrying Cost $\left[\frac{Q}{2} \times C \times i\left(3{,}000\ units\ \times Rs.608\ \times {}^{1}/_{2} \times 18.75/100\right)\right]$	1,71,000
Total Cost	74,74,200

Advise - The total cost of inventory is higher if EOQ is adopted. If M/s. X Private Limited gets a discount of 5% on the purchases of "SKY BLUE" (if order size is 3,000 components at a time), there will be financial benefit of Rs. 2,77,800 (77,52,000 – 74,74,200). However, order size of big quantity will increase volume of average inventory to 5 times. There may be risk of shrinkage, pilferage and obsolescence etc., of inventory due to increase in the average volume

of inventory holding. This aspect also has to be taken into consideration before opting the discount offer and taking final decision.

(4 MARKS)

ANSWER – B

(i) Re - order quantity = $\sqrt{\frac{2\,AO}{C \times i}}$

$= \sqrt{\frac{2 \times 7500 \times 12 \times 500}{60 \times 10}}$

= 3,873 units

(ii) Re-order level

= Maximum re-order period X Maximum usage

= 8 weeks X 750 units per week

= 6,000 units

(iii) Minimum stock level

= Re-order level – {Normal usage X Average reorder period}

= 6,000 – (500 X 6.5)

= 2,750 units

(iv) Maximum stock level

= Re-order level + Re-order quantity – (Minimum usage X Minimum re-order period)

= 6,000 + 3,873 – (5 X 250)

= 8,623 units

(v) Average stock level

= ½ (Minimum stock level + Maximum stock level)

= ½ (2,750 + 8,623)

= 5,687 units

(5*1 = 5 MARKS)