

Class - B Com. Part III

Subject - Cost Acc

Topic - Economic Order Quantity (Problem & solution)

Problem: The annual demand for an item is 3200 units. The unit cost of is Rs. 6.00 and inventory carrying cost is 25% per annum. If the cost of an order is Rs. 150 determine:-

- (i) E.O.Q
- (ii) No. of order per year
- (iii) Time between two consecutive order.

Given:  $R = 3200$  units,  $P = Rs. 6$ .

$C_c = \frac{6 \times 25}{100} = 1.50$ ,  $C_o = Rs. 150$

(i)  $E.O.Q = \sqrt{\frac{2 \times R \times C_o}{C_c}} = \sqrt{\frac{2 \times 3200 \times 150}{1.50}} = 800$  units

(ii) No. of order per year =  $\frac{R}{Q} = \frac{3200}{800} = 4$

(iii) Time between two consecutive order =  $\frac{\text{No. of months in a year}}{\text{No. of order per year}} = \frac{12}{4} = 3$  months

Thus the firm is safe in placing the order of 800 units. If he place order more than 800 units at a time he have to bear extra cost of carrying the raw materials. He may incur loss and may shut down.