

E217 – Inventory Management

Quiz for Problem 03: Prevent Stock-out

State if the below statement is **True or False**.

1. Uncertainty in customer demands may lead to unexpected stock-outs during the period of replenishment lead-time if no safety stock is considered.
Answer: True
2. If safety stock is considered, the optimal order quantity will be affected.
Answer: False. The optimal order quantity has nothing to do with safety stock.
3. The purpose of reorder point is to decide when to place an order
Answer: True
4. The probability of stock-out could be used to measure customer service level.
Answer: True
5. If higher customer service level is to be achieved, more safety stock is required.
Answer: True
6. The higher the required safety stock level, the higher the reorder point is.
Answer: True
7. Under normal circumstances, businesses need not target to fulfil 100% customer demands. Instead, it is recommended to meet most of the customer's demands at an acceptable customer service level.
Answer: True
8. It is favourable to have backorders when there is very low holding cost for the products. For example, expensive and/or large products like cars, furniture, etc.
Answer: False. It should be high holding cost
9. Costs associated with backorders may include admin cost, loss of goodwill, loss of future orders, emergency orders, etc.
Answer: True
10. If the demand standard deviation is 4 per week, demand is 130 per week, and the desired service level is 98%, what is the approximate safety stock level?
a) 8 units

- b) 16 units
- c) 32 units
- d) Can't be determined as there is no lead time information