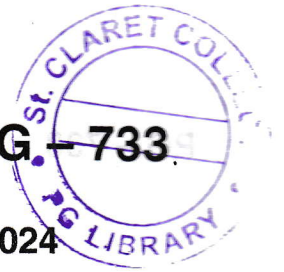




PG-733



**III Semester M.B.A. (Day & Eve.) Examination, June/July 2024
(CBCS) (2022 – 23)
MANAGEMENT**

Paper – 3.12.1 : Inventory Management

Time : 3 Hours

Max. Marks : 70

SECTION – A

Answer **any five** of the following questions. **Each** question carries **5** marks. **(5×5=25)**

1. Differentiate between independent and dependent demands in inventory management. Provide examples for each.
2. What are the benefits of traceability and variety reduction in inventory planning ? Provide examples to illustrate.
3. Explain the concept of Joint Replenishment Inventory Problem (JRIP) and its relevance in inventory management.
4. Describe the Just-In-Time (JIT) inventory system. What are its advantages and challenges ?
5. How does lead time management contribute to improving inventory management efficiency ? Provide examples to illustrate.
6. Discuss the importance of inventory coding systems in inventory management.
7. Explain the concept of inventory carrying cost with examples.

SECTION – B

Answer **any three** of the following questions. **Each** question carries **10** marks. **(3×10=30)**

8. Compare and contrast different inventory systems such as periodic review and continuous review systems. What are the advantages and disadvantages of each ?
9. Explain the concepts of Economic Order Quantity (EOQ) and Reorder Point (ROP) in inventory replenishment. How are they calculated and applied ?
10. Explain the importance of demand forecasting in effective inventory management. What methods are commonly used for demand forecasting ?
11. Discuss the fundamentals of ERP (Enterprise Resource Planning) systems in the context of inventory management. How do they integrate inventory data across different functions ?

P.T.O.



SECTION – C

12. Case Study (**Compulsory** question).

(1×15=15)

In a bustling manufacturing facility, ABC Manufacturing, renowned for its precision engineering, faced a daunting challenge in optimizing its inventory operations. The company's inventory accuracy had been faltering, leading to stockouts of critical components and excess inventory of slow-moving items, both of which were detrimental to production efficiency and financial performance. Recognizing the urgency of the situation, the management decided to overhaul their inventory operations by implementing a Just-In-Time (JIT) inventory system. This shift aimed to streamline inventory replenishment processes, minimize carrying costs, and improve overall inventory management efficiency. As part of the JIT implementation, ABC Manufacturing conducted a thorough analysis of its demand patterns, supplier lead times, and production schedules to determine optimal reorder points and order quantities for each inventory item. Additionally, they invested in advanced inventory tracking technology and barcode systems to enhance inventory accuracy and real-time monitoring of stock levels. Moreover, the company established closer relationships with key suppliers to ensure timely deliveries and reduce the risk of stockouts. The JIT system enabled ABC Manufacturing to achieve significant improvements in inventory turnover, reducing excess inventory levels while ensuring a consistent supply of materials for production. As a result, the company experienced enhanced production flexibility, reduced carrying costs and improved cash flow. However, the transition to JIT was not without its challenges, as it required significant changes in the company's procurement, production, and logistics processes. Moreover, maintaining accurate demand forecasts and managing supplier relationships remained ongoing concerns for ABC Manufacturing. Despite these challenges, the successful implementation of the JIT inventory system marked a significant milestone in the company's journey towards operational excellence and competitive advantage.

Questions :

- a) What were the main challenges faced by ABC Manufacturing in its inventory operations prior to implementing the JIT system ?
 - b) How did the JIT system address these challenges and contribute to improving inventory management efficiency at ABC Manufacturing ?
 - c) What were the key factors considered by ABC Manufacturing in determining optimal reorder points and order quantities under the JIT system ?
 - d) Explain the ongoing challenges and considerations for ABC Manufacturing in maintaining the effectiveness of the JIT inventory system, particularly regarding demand forecasting and supplier relationships.
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