

reroute, and manage deliveries more efficiently. Reengineering the logistics process will require redesigning workflows, employee training, and investment in digital infrastructure. However, management is optimistic that such a transformation will reduce operational costs, improve delivery timelines, and enhance customer satisfaction. The company is now conducting a feasibility study to determine the scope and impact of implementing these technologies. As part of this evaluation, the management team seeks to answer critical questions to shape their strategic direction.

Questions :

- (a) What are the primary causes behind the delays and product damage in XYZ Logistics' operations?
- (b) How can RFID technology transform XYZ Logistics' inventory and warehouse management?
- (c) How can GPS tracking improve delivery efficiency and customer satisfaction?
- (d) What are the potential challenges XYZ Logistics might face while reengineering its logistics process with RFID and GPS?

MBSC 3001 R

M.B.A. DEGREE EXAMINATION, MAY 2026.

Third Semester

Operations and Supply Chain Management

PRODUCTION AND OPERATIONS MANAGEMENT

(2023 Regulations)

Time : Three hours

Maximum : 75 marks

PART A — (5 × 4 = 20 marks)

Answer any FIVE questions.

1. Define the term "Operations Strategy".
2. What is the bullwhip effect in supply chain management?
3. Mention the benefits of outsourcing logistics.
4. What are the basic principles of materials management?
5. How is inventory classified under ABC analysis?
6. List four features of an effective warehouse management system.

7. Write a note on the role of transportation in SCM.
8. Explain any two performance metrics in supply chain operations.

PART B — (5 × 8 = 40 marks)

Answer any FIVE questions.

9. Elaborate on the various types of production systems with examples.
10. Discuss the role of logistics in enhancing customer satisfaction.
11. Explain the procurement process in detail.
12. How does technology facilitate effective materials and store management?
13. Describe the significant risks in global supply chains and how to manage them.
14. What steps are involved in implementing Total Quality Management (TQM) in operations?
15. Explain the contribution of supply chain analytics to decision-making.
16. Illustrate the layout types used in production facilities and their applications.

2

MBSC 3001 R

PART C — (1 × 15 = 15 marks)

Answer the following.

17. Case Study (Compulsory) :

Logistics Reengineering at XYZ Logistics Pvt. Ltd.

XYZ Logistics Pvt. Ltd., a growing player in the Indian logistics and supply chain industry, has recently encountered a surge in customer complaints. Most of these grievances stem from delays in order fulfilment and damage to goods during transportation. These issues have tarnished the company's brand reputation, leading to customer attrition and financial penalties. As a result, senior management is exploring a strategic overhaul of their logistics operations. Initial internal audits reveal that the company continues to rely on manual tracking systems and has limited visibility over its supply chain processes. Delivery vehicles often follow inefficient routes, leading to late arrivals. Moreover, inadequate packaging practices and rough handling by warehouse staff are frequently cited as causes of product damage. In response to these challenges, the company is contemplating integrating Radio Frequency Identification (RFID) and Global Positioning System (GPS) technologies into its logistics operations. RFID tags can provide real-time inventory visibility as it moves through the supply chain. At the same time, GPS tracking offers live updates on vehicle movement, allowing the company to monitor,

3

MBSC 3001 R