

Time: 3 Hours

Marks : 80

Note: (1). Q.1 is Compulsory.
(2). Attempt any three questions out of the remaining five.

- Q.1 Attempt any four: **20**
- (a) What is meant by Supply Chain Management? What are the objectives of Supply Chain Management?
 - (b) What is meant by Bullwhip Effect in Supply Chain? How can it be reduced?
 - (c) What are the reasons for holding inventory?
 - (d) What are the objectives of Logistics Management? What are the factors affecting logistics function?
 - (e) How do businesses incorporate RFID into the Supply Chain?
- Q.2 (a) What are the challenges in establishing a global supply chain? **10**
- Q.2 (b) Discuss how to create a supplier scorecard in supplier performance evaluation. **10**
- Q.3 (a) What is the difference between a P system and a Q system in inventory control? **10**
- Q.3 (b) Find the optimum order quantity given that annual usage is 500 pieces, setup cost is Rs. 10, $I=20\%$, cost per unit is Rs. 100 **10**
- Q.4 (a) Discuss the factors in packaging that lead to efficient logistics management. **10**
- Q.4 (b). What is the difference between a forward supply chain and a reverse supply chain? **10**
- Q.5 (a) What is a Transport Management System (TMS)? What are its different components? **10**
- Q.5 (b) What is a Warehouse Management System (WMS)? What are the essential processes in a WMS? **10**
- Q.6 Answer the following: **20**
- a. What are the pros and cons of different modes of transportation?
 - b. What is the difference between takt time and lead time?
 - c. A company has received an order for 1,500 units of mugs that need to be manufactured in a period of 24 hours. Calculate the takt time. Assume that the firm has continuous manufacturing processes 24 hours a day.
 - d. What are the various design options for a distribution network? Draw their labelled sketches.?
 - e. What is meant by Supply Chain Resilience?
