

Time: 3 hours

Max. Marks: 100

- NB: 1) All questions are compulsory  
2) Specify **assumptions**, if any, while **answering** the questions.  
3) **Figures** to the **right** indicate **full** marks.

**Q. 1. a) Fill in the blanks. (Attempt Any 10) (10)**

1. As a thumb rule, FMCG firms have a larger number of warehouses than an engineering company of similar size because of \_\_\_\_\_.
  - a) low unit price of the product
  - b) frequent purchases by customer
  - c) pattern of product consumption and replenishment
  - d) strategic decision
2. In the public warehouse there is no scope for \_\_\_\_\_ of storage and material-handling facility.
  - a) customization
  - b) maintenance
  - c) functional improvement
  - d) productive usage
3. The limitations in implementation of a logistics programme are order processing cycle, inventory norms and \_\_\_\_\_.
  - a) transportation cost
  - b) warehouse capacity
  - c) warehouse type
  - d) packaging
4. Warehouse layout is greatly affected by \_\_\_\_\_.
  - a) material-handling system
  - b) product demand in the market
  - c) storage capacity of the place
  - d) inventory throughput
5. Distribution requirement planning is a system for \_\_\_\_\_.
  - a) Inventory management
  - b) Distribution planning
  - c) Both 'a' and 'b'
  - d) None of the above
6. VMI stands for \_\_\_\_\_.
  - a) Vendor material inventory
  - b) Vendor managed inventory
  - c) Variable material inventory
  - d) Valuable material inventory

7. Supply chain mapping means the study of \_\_\_\_\_.
- logistics network
  - activities sequence
  - value and non-value-added activities
  - cost reduction areas
8. A well-designed material storage system will ensure \_\_\_\_\_.
- space efficiency
  - productivity
  - speed to market
  - low product damages
9. Components of the logistics mix are warehousing, transportation, packaging, inventory controls and \_\_\_\_\_.
- material handling
  - information flow
  - strategic logistics
  - reverse logistics
10. The ABC analysis of inventory control is based on \_\_\_\_\_.
- usage pattern
  - usage value
  - inventory movement
  - criticality in application
11. \_\_\_\_\_ is the most reliable mode of transportation for petroleum products.
- air
  - road
  - sea/waterways
  - pipeline
12. Higher inventory turnover ratio indicates better \_\_\_\_\_ utilization.
- demand
  - time
  - assets
  - manpower

**b) State whether following statements are true or false. (Attempt Any 10) (10)**

- Inventory velocity refers to the average speed (in miles/hour) of material handling equipment in a warehouse.
- Logistics is also referred to as supply chain management.
- Freight transportation often accounts for even two-thirds of the total logistics cost and has a major impact on the level of customer service.

4. Warehouses enable storage of goods when their supply exceeds demand and by releasing them when the demand is more than immediate productions.
5. Material Management includes design and administration of systems to control the flow of materials, WIP and finished inventory to support business unit strategy.
6. A Distribution Management System (DMS) is a collection of applications which shall monitor and control the entire distribution network efficiently and reliably.
7. The growth of containerization depends on the development of a multi-modal transportation network in the country.
8. The supply chain will ensure competitiveness, while logistics will ensure cost effectiveness.
9. The goal of a materials-handling system is to handle products as infrequently as possible.
10. Managing inventory from the supplier to the manufacturer is called distribution resource planning (DRP).
11. As firms become increasingly supply chain oriented, they develop management practices that are consistent with a systems approach.
12. Supply chain management is completely producer driven.

**Q.2.** Answer the following questions (**Any Two**) (15)

- a) Explain the functions of supply chain management.
- b) Discuss the difference between logistic and supply chain management.
- c) What are the operational objectives of logistics?

**Q.3.** Answer the following questions (**Any Two**) (15)

- a) Explain warehouse layout and design principles.
- b) Discuss in detail the warehouse strategy.
- c) State the factors influencing transportation decisions.

**Q.4.** Answer the following questions (**Any Two**) (15)

- a) What are the benefits of good packaging?
- b) Explain the principles of material handling.
- c) Discuss the factors affecting the selection of material handling equipments.

**Q.5. Answer the following questions (Any Two)**

**(15)**

- a) Explain the importance of inventory management.
- b) Discuss the traditional methods of inventory control.
- c) Discuss the functions of inventory.

**Q.6. Write short notes on the followings (Any Four)**

**(20)**

- a) Material handling cost
- b) Cross docking
- c) Pipeline as mode of transportation.
- d) Inventory policy
- e) Consumer Packaging
- f) Palletisation