

DEC-2009

**INDIAN INSTITUTE OF MATERIALS MANAGEMENT
Post Graduate Diploma in Logistics Management**

PAPER 2

LOGISTICS FUNDAMENTALS AND PROCESS

Date: 13 .12. 2009
Time:10am to 1.00 PM

Max Marks : 100
Duration : 3 hours

Instructions:

1. PART A contains four main questions (with eight sub questions of one mark each) Total Marks:32
 2. PART B: Answer any three questions out of five questions sixteen marks each Total Marks:48
 3. PART C Compulsory case study Total Marks:20
 4. Please read the questions and instructions on the answer sheet carefully.
-

PART A

Q.1 Indicate whether following statements are 'TRUE' or 'FALSE'

1. Operational smoothness at minimum cost commensurate with optimum efficiency can be achieved through effective inventory control.
2. Rail traffic is comparatively economical for small shipments and for haulage over short distances.
3. A bar code is a series of parallel black & white line of various thickness used for ensuring accuracy and improving speed of operations.
4. During the period of transit, the transporter is fully responsible for loss, damage and deterioration of goods except under Force Majeure conditions.
5. First In First Out method : The materials are issued at actual cost in strict chronological order of arrival in the company premises.
6. The design of packaging should also be considered at the stage of product design, required production process and transportation systems
7. The road freighting is advantages for very heavy loads bulky materials and haulage over long distances.
8. Bill of Lading is the contract of affreightment, a Carriers Receipt prepared by shipping company at the port of shipment which gives the holder the title to the goods .

Q.2 Fill in the Blanks.

1. The buildings or premises where materials on which customs or excise duties have not been paid, are called as
2. or is held in excess of cycle stock due to uncertainty in the market and demand or lead time variability of the materials.
- 3 Benefits of include reduced paperwork and cycle time, improved accuracy & information availability and opportunity for proactive action.
4. The ideal location for would be adjacent to production facilities so that handling materials is reduced.
5. The product of margin which is profit / sales and capital turnover which is sales/ capital employed is called
6. is inventory that results from replenishment of inventory sold or used in production.
7. is the process of matching the customers transport requirement with availability of resources, fleet of vehicles, manpower and determining the routes and schedules.
- 8 . Recovering or saving condemned, discarded/abandoned materials, equipments or property in order to obtain useful parts there from is called

Q.3 Match the following: (1 marks each)

| | | | |
|---|---|---|---|
| 1 | Goods Receipt Note | A | Sum total of inventory within and among all processing centres of manufacturing process |
| 2 | Physical Stock Taking | B | Operating cost saving, improved service level, increased control through better information |
| 3 | Two bin system | C | Packing, Handling, Storage and Transportation |
| 4 | Dead Weight Tonnage | D | Characteristics like Density, Stowability, Ease or difficulty of Handling & Liability |
| 5 | Product related factors for transportation cost & price | E | Number of tons of stores, fuel and cargo that a ship can transport from to one place to another |
| 6 | Industrial Logistics costs | F | Reserve stock of materials and signal for timely replenishment to avoid stock-out |
| 7 | Automated Storage and Retrieval System | G | Process of Counting, weighing, measuring & recording all the items in stock |
| 8 | Work in Process Inventory | H | Certificate from Stores Department to Accounts Department for release of payment |

Q.4 Expand the following.

- (a) EDI (b) ROL (c) RR (d) LCL
 (e) VLCC (f) VED (d) JIT (h) WIP

PART - B

- Q.5 Explain key Logistics Management activities required for smooth flow of products from point of origin to point of consumption.
- Q.6 Discuss the role & purpose of Inventory Control and techniques of Selective Inventory Control for a manufacturing company.
- Q.7 Elaborate various types of material handling equipments and their requirements for specific materials, like bulk Raw materials , Spares and Consumables, finished goods, Petroleum, Oil & Lubricants.
- Q.8 Write short note on any four of the following.
1. Role of Codification in Stores
 2. Inspection of materials
 3. Just in Time Inventory
 4. Third Party Logistics
 5. Methods for valuation of materials issued from Stores
 6. Demurrage and wharfage
 7. Quality assurance and supplier – client relationship
- Q.9 What are the routine reports & Management Information Systems required for efficient organization & control of Logistics Department in the overall context of Supply Chain Management?

Part C –Compulsory Case Study

Q.10(a) M/s Ganesh Manufacturing Company, Shed number 33 ,Thane Belapur Road Navi Mumbai Maharashtra has been supplying gear box assembly to an automobile company which is market leader in its segment . The automobile company has been maintaining a very good market reputation and can not compromise on quality , reliability and delivery of its vehicles. The automobile company has placed order for long term supply of gear box assembly on M/s Ganesh Manufacturing Company, Shed number 33, Thane Belapur Road, Navi Mumbai, Maharashtra.

The gear box assembly consist of several components of machined items as well as bought out items / parts . The details of procurement regarding one of the critical items / parts of the gear box assembly by M/s Ganesh Manufacturing Company, Shed number 33, Thane Belapur Road, Navi Mumbai, Maharashtra are given below.

- | | |
|-------------------------------------|---------------------|
| 1. Cost of the item / part | : Rs. 2500 per unit |
| 2. Inventory carrying cost | : 25 % |
| 3. Normal Lead Time | : 90 days |
| 4. Normal Ordering/Procurement cost | : Rs 500.00 |
| 5. Annual requirement of the item | : 25000 units |

Calculate the Economic Order Quantity for the item, Safety Stock, and suggest practical considerations.

Q.10(b) Explain important considerations for size of a warehouse, suitable location of a warehouse and cost factors associated with warehousing of materials.