INDIAN INSTITUTE OF MATERIALS MANAGEMENT
Post Graduate Diploma in Materials Management
Graduate Diploma in Materials Management

Dec 2012

PAPER No. 11

LOGISTICS & SUPPLY CHAIN MANAGEMENT

Date : 14.12.2012 **Max. Marks :100**
Time : 10.00 a.m. to 1.00 p.m. **Duration : 3 Hrs.**

Instructions

1. **PART A** is compulsory. Answer all questions. Total marks = 32
2. From **PART B,** answer any three questions. Each question carries 16 marks. Total marks = 48
3. **PART C** is **Case Study** and is compulsory. Answer the questions reflecting through understanding of the case. Total marks = 20
4. Please read instructions on the answer sheet carefully.

PART A

Q1: State "True or False" **16 Marks**

1. Outbound logistics include warehousing, transportation and marketing strategies for promotion of products.

2. Logistics cost is mere 10 to 15 % of sales value.

3. Logistical packaging & product packaging is same.

4. There is a need to extend the logic of logistics downstream to suppliers & upstream to customers in the supply chain.

5. Once you implement JIT, you need not keep any inventories.

6. The purpose of supply chain mapping is to find out **only** non value added activities.

7. Centre of gravity of area model for warehouse site selection, the point is expected to be at maximum distance from all locations.

8. The hubs are responsible for primary distribution to dealers' stockists or wholesalers.

9. 'Silos' are used for storing small items like nuts, pins etc.

10. Inventory should be held only when the benefits of holding inventory does not exceed the cost of holding it.

11. Retailers risk duration is much larger than for wholesaler.

12. Logistical packaging is designed to meet marketing objectives.

13. In order to gain competitive edge, the strategic level decisions are taken; the frequency of such decisions is extremely frequent.
14. Manufacturer, Wholesaler, Retailer & ultimate consumer in supply chain, means 3 levels channel structure.

15. In "make-to-order", inventory is planned in such a way that, huge stocks are available, to serve customer in a better way.

16. Logistics function has to achieve two polemic goals of cost reduction & superior customer service.

Q2: Complete the sentences by using appropriate word/words. 8 Marks

1. **Kanban** literally means _____ .

2. Expand abbreviations i. **AITS** _____ .
   ii. **VLCC** _____ .

3. Eco friendly transportation modes are
   i._____ ii._____ .

4. **"Kodak"** system is known in Materials Management for ._____

5. Product life stages are – Introduction, Growth & _____ before decline.

6. Tramp vessels operate on _____ basis.

7. Vehicle can be traced accurately with the help of satellites, the system is known as _____ .

8. Transfer of documents from one computer to another is through a technology called as_____.

Q 3 Match the following: (1Mark Each) **(8 Marks)**

1. Conrtacts	A . Tracking Consignment
2. ISO-14000	B . Quality
3. TQM	**C.** Environmental Mgt. System
4. RFID	D. Valid/Invalid
5. Product Life Cycle	E. Quality Management System
6. Heuristic Algorithm	F. Growth/ Maturity
7. Exact Algorithm	G. Optimal Solution
8. ISO-9000	H. No Optimal Solution

PART B

Q4.

a) Define Logistics **2 Marks**

b) Define supply chain **2 Marks**

c) Describe different phases in detail, of "customer service" transactions**. 12 Marks**

Q5. Write short notes (Any 4) **16 Marks**

1. Cross Docking
2. Postponement
3. Mass customization
4. Intermodal Transportation
5. JIT – Suppliers
6. Outsourcing

Q6.

a) What is Reverse Logistics, illustrate with few examples. **8 Marks**

b) Differentiate between Reverse Logistics & Return Goods logistics. **8 Marks**

Q7. Describe with examples (Any 4) **16 Marks**

a) Mechanized – Materials Handling
b) Vendor Managed Inventory
c) Packaging cost
d) Cold Chain
e) Factors influencing Freight cost

Q8. Discuss the various types of logistics strategies being used across the industry. Illustrate examples. **16 Marks**

PART C (Compulsory) **20 marks**

A company produces special kinds of TVs & its parts. The details are:

I. Cost of part	= Rs 1/- each.
II. Annual requirement	= 250,000 units
III. Normal lead time to produce goods	= 6 weeks
IV. Demand	= 4810 units/week
V. Standard Deviation	= 400/week
VI. Service Level	= 95% (k=1.64)
VII. Procurement Cost	= Rs. 60/ order
VIII. Inventory Carrying cost	= 2.5% per month
IX. Maximum lead time in the past	= 10 weeks
X. Probability of lead time extension	= 25 %

Calculate:

a) EOQ 4 Marks

b) Safety stocks, ROL & Maximum level as per Q method — 6 Marks

c) Safety Stocks, ROL, Maximum Level as per P method — 6 Marks

d) If supplier insists for 5 orders in a year with 15% discount, will you avail? Why? — 4 Marks

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