



INDIAN INSTITUTE OF MATERIALS MANAGEMENT
Post Graduate Diploma in Materials Management
Graduate Diploma in Materials Management
PAPER No. 11

June 2017

LOGISTICS MANAGEMENT

Date : 16.06.2017
Time : 10.00 a.m. to 1.00 p.m.

Max. Marks :100
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

32x1 = 32 marks

(compulsory- Attempt all Questions each question carries 1 mark)

Q 1. Fill in the blanks

[8 marks]

- a) Supply buffer management includes the use of various buffers to manage the volatility in -----
- b) ----- buffer can be used to manage unexpected surges in demand not only for unplanned demand but also for planned demand
- c) Inbound logistics or the process of acquisition of material is typically called -----
- d) ----- is successful when the product quality is high
- e) ----- principle reduce ratio of mobile handling equipment dead weight to load carried.
- f) Economy of scale refers to the characteristics that transportation cost per unit of weight ----- when size of the shipment increases
- g) ----- = No. of consignment damaged in transit / total no of consignments
- h) -----refers to the collection of large quantities of a single product or several different products so that they can ultimately be sold as a group

Q. 2. Match the following:

[8 marks]

Column A	Column B
a) Turn velocity	1) Is defines as the situation the company presents before the arrangement with a 3PL in terms of the metrics it consider relevant for its performance
b) Rapid response	2) It allows for increased efficiency
c) Warehouse	3) It is a functional driver of distribution efficiency
d) Stow ability	4) Involves the rate of inventory usage over a period of time
e) Base Case	5) Is done to goods returned by customers due to damage, defects or below par performance during the warranty period.
f) Refurbishing	6) Is concerned with a firm's ability to satisfy customer service requirement in a timely manner
g) Specialization	7) Refers to vehicle space utilization as is reflected by product dimensions
h) Formalization	8) Has become an integral part of JIT and stockless production strategies

Q. 3. Find True or False of the following

[8 marks]

- a) The traditional solution to accommodate variance was to establish safety stock inventory or use high-cost premium transportation
- b) Outbound logistics means the movement of material received from suppliers
- c) The flow of the supply chain that occurs within the individual organizations is called the internal supply chain.
- d) Stock spotting is commonly used in physical distribution for organizations products to farmer during the growing seasons
- e) Control principle use handling equipments to improve production capacity
- f) Zero level channel is used for consumer durable products
- g) Logistics can be included centrally or decentrally in the current organizational structure as an additional operations
- h) Modules re the actual routines that process data or information such as entering order or assigning inventory

Q. 4. Expand the following

[8 marks]

- a) JIT
- b) TQM
- c) MRP II
- d) ATO
- e) CTM
- f) LTL
- g) CWC
- h) GRN

PART - B

Write any three (3) of the following questions – 16 marks each

(48 Marks)

Q. 5. a) Describe the various types of warehouses

b) Explain transport economics with suitable diagram

Q. 6. a) Differentiate between standing cost and operating cost of transportation

b) Describe the system designed for reverse logistics

Q. 7. a) Explain the concept of channel flow

b) Describe logistics operational & support functions

Q. 8. a) Describe the satellite communication and internet & bar code and scanning

b) Discuss the various key enablers and growth drivers of logistics industry of India

Q. 9. Write short note on (Any Two)

- a) Capacity Buffer
- b) Refrigerated warehouse
- c) ASRS Systems

PART – C

[20 Marks]

Q. 10. CASE STUDY

The Hardrock Concrete Company has plants in three locations and is currently working on three major construction projects, each located at a different site. The shipping cost per truckload of concrete, daily plant capacities, and daily project requirements are provided in the accompanying table.

To		Project A	Project B	Project C	Plant Capacities
From	Plant1	\$10	\$4	\$11	70
	Plant2	12	5	8	50
	Plant3	9	7	6	30
	Project Requirement	40	50	7	15

- a) Formulate an initial feasible solution to Hardrock’s transportation problem
- c) Was the initial solution optimal?
