



INDIAN INSTITUTE OF MATERIALS MANAGEMENT
Post Graduate Diploma in Logistics Management

Dec 2012

PAPER-5
LOGISTICAL SYSTEMS OPERATION

Date: 08.12.2012
Time: 2.00 p.m. to 5.00 p.m.

Max Marks: 100
Duration: 3 Hours

Instructions:

- 1) Part A- Answer all questions
- 2) Part B-Answer any three questions
- 3) Part C -Compulsory

Total Marks=32
Total Marks=48
Total Marks=20

PART - A

Q.1 True or False

Marks (8)

- a) Shipment consolidation is not an economic benefit of warehousing.
- b) Decoupling does not provide maximum operating efficiency.
- c) Safety stocks protect against uncertainty.
- d) Effective and efficient materials management and inventory control requires many types of forecasts.
- e) Pipeline as a transport mode is more dependable than other transport mode.
- f) Pipelines are labour intensive; hence variable operating cost is extremely high after construction.
- g) The prime factors in the selection of ware house are the availability of services and cost consideration.
- h) The main advantage of water transportation is the ability to move extremely large shipments economically

Q.2. Fill in the blanks.

Marks(8)

- a) Quantitative techniques rely heavily on expert and preferences.
- b) The main disadvantage of water transportation is lead-times/delivery times.
- c) Stock in movement is also called as..... stock / pipeline stocks.
- d) Logistics operational is to ensure delivery of only right quality product.
- e) Quantitative techniques cover time analysis of forecasting.
- f) Forecasting is one of the essential required by a Materials Manager.
- g) Most advanced logistical change driver is quality management.
- h) Order cycle is the lag between two successive orders .

Q.3. Give full-form of the following.

Marks(8)

- | | | | |
|--------|--------|---------|---------|
| a) SKU | b) LCL | c) AGVS | d) ASRS |
| e) EOQ | g) WAN | h) TOFC | i) LTL |

Q.4 Match the following from Colum A and Colum B

Marks(8)

Colum A

Colum B

- | | |
|---------------------------------------|------------------------------------------------------------------------------------------------|
| 1.Safety Stock | a) ensures a proper balance between total logistic cost & a desired level of customer service. |
| 2.TOFC | b) Environment's enemy |
| 3.Perpetual inventory control process | c) Should be established if it can render either service or cost advantage |
| 4.Forecasting error | d) used during emergencies |
| 5.Hazardous materials | e) Buffer Stock |
| 6.Temporary Store Huts | f) Gap between actual sales & actual forecast |
| 7.Warehouse | g) review inventory status daily to determine replenishment needs |
| 8.Logistical objectives | h) most widely used intermodal transport system |

PART – B (any three)

16 x 3 = 48 marks

Q.5 What are the different types of packaging materials which are used in industrial environment/scenarios?.

Give their advantages and disadvantages?

Q.6 What is Unitization. How does unitization help in logistics for a firm in large sector?

Q.7 What are the various factors considered for site selection of warehouses? Also explain DRP and its benefits.

Q.8. What is forecasting? Why is it necessary? Discuss various methods of forecasting.

Q.9. Write short notes (Any four)

- a) Inventory Management Targets
- b) Safety Stocks
- c) Economic benefits of Warehousing
- d) Cross Docking
- e) Bar Coding and scanning
- f) Vendor Managed Inventory
- f) Multimodal Transport

PART- C

Q.10. CASE STUDY

20 marks

Advanced Management University is a large private university teaching a slew of courses and boasting of a distinguished faculty. The University believed in Quality Education at any cost. Recently Ms Ruby took over as Head of Purchasing and was informed that she would be responsible for the entire procurement activity in the university, including its storing, inspection etc.

On the first day, she began a tour of the campus. She found a sweeper putting used x-rays, printed stationery, bits of metal and banana peels into a huge dustbin. She was perplexed and wanted to find out what happens to the garbage thereafter. She was informed that such garbage bags were kept in one place and then taken away by the municipality trucks whenever they come.

It did not take Ms Ruby to realise that there was no salvage program in the university. But she also realised that being new, it would be tricky for her to introduce new practices, given that the faculty were highly egoistic, though learned. She also had to show clear financial benefits to be accrued from a program of garbage recycling /salvage for approval of any new process by the management.

Answer all Questions:

- a) What arguments are there in favour of a formal salvage program at Advanced Management University?
- b) What arguments would be expected against the program?
- c) What organisational structure should Ms Ruby install?
- d) Develop a salvage program for Advanced Management University.
