



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

June 2015

PAPER No. 11 (New)

LOGISTICS MANAGEMENT

Date : 19.06.2015

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

32 marks

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

Q1. State TRUE or FALSE - 1 Mark each

(8 Marks)

1. Logistics is a subset of supply chain management.
2. Variance is an unexpected event that disrupts performance of the system.
3. Capacity buffers cannot be used to manage unexpected surges in demand.
4. Consolidation warehousing simplifies supply chain and reduces cost.
5. Stock piling does not provide an inventory buffer to support marketing requirement.
6. Panel carts are used to transport large sheets.
7. A towline ensures continuous movement and is more efficient than a forklift truck.
8. Paternoster is a special elevator that is used to move a chain of boxes.

Q2. Fill in the Blanks - 1 Mark each

(8 Marks)

1. Containerization has changes the shape of world _____.
2. Three levels of management control are _____, _____ and _____ control.
3. Truck, rail, water, pipeline and air are transportation _____ options.
4. E-logistics is a group of organizations doing trading through _____.
5. Consumer oriented packaging is designed for consumer's _____ and _____.
6. A _____ is nothing but integration of internal and external functions.
7. Warehousing is important for _____ flow of materials.
8. A storage depot is a type of _____.

Q3. Expand the following abbreviations (1 mark each) (8 Marks)

- | | | | |
|--------|--------|--------|---------|
| 1. BOM | 2. EDI | 3. WMS | 4. RFID |
| 5. FTL | 6. FTZ | 7. SCP | 8. DRP |

Q4. Match the following in column A with those in column B - 1 Mark each (8 Marks)

Column A		Column B	
P	Electronic Data Interchange	A	Carriage of goods
Q	Modules	B	Classification method
R	Mode of Transport	C	Activities governed by rules
S	Invalid Carriage	D	System performance parameter
T	Formalization	E	Capability of communicating information
U	Bar code	F	Productivity measurement
V	Operating efficiency	G	Specially designed motor vehicle
W	Accident ratio	H	Actual Routines

PART - B

Write any three (3) of the following questions – 16 marks each (48 Marks)

- Q5. Explain the principles of material handling in detail. What are overhead cranes, hoist and conveying equipment? Draw neat diagrams wherever necessary.
- Q6. What is ASRS system? Explain the physical verification of inventory and their various methods.
- Q7. Explain the concept of transportation and the legal classification of carriers in detail.
- Q8. What is outbound logistics and logistics outsourcing? Explain the concept of third party logistics.
- Q9. Describe the different levels of functionality of logistics information and explain satellite communication and intranet.

CASE STUDY**Jim Young: Sourcing for a Startup**

During my time as a student at San Jose State, I did an internship making technical training videos for Applied Materials, an equipment, services, and software supplier for the global semiconductor, flat panel display, and solar photovoltaic industries. After graduating with a radio, television, and film major, I went to Los Angeles to look for work in the entertainment industry. But jobs were hard to come by in those days. So when I ran into someone I knew from Applied Materials, and he offered me a job in the stockroom, I grabbed it. I learned how to locate and pick parts, and use the company's order fulfillment system. After one year, I moved up to a job as a materials planner. I stayed with Applied Materials for 25 years. Since 2011, I've worked for a startup, Applied Microstructures, which designs and manufactures equipment that produces ultra-thin films for a variety of applications. For instance, pharmaceutical companies use them to put coatings on pills. We sell our technology to customers all over the world. As senior supply chain manager, I'm responsible for everything from sourcing materials and services to shipping finished products. I oversee a logistics manager who runs the stockroom, and a manufacturing engineer who works with the product development team.

Most of the suppliers we work with are located close to our facility. That way, we can quickly solve any problems that may arise. The major exception is our chemical suppliers, which can be located anywhere. We don't have a license to ship chemicals, so the suppliers ship products directly to our customers. On the outbound side, we move systems and spare parts via our customers' carriers. I work with those customers and their logistics partners to understand the markets we're serving and set up the transportation lanes. The biggest challenge I face is sourcing for a small startup. My previous employer, Applied Materials, is a Fortune 500 firm. If we signed a \$5-million agreement with a precision machine shops, that was a small contract. Here, my annual spend for precision machining is far less than \$900,000. This means we have to work with smaller suppliers. Unfortunately, they don't always have the systems in place to deliver the quality we require. To get that quality, I have to spend a lot of time helping those shops enable their capabilities. I serve as an unofficial consultant, recommending strategies they can use to better manage their operations.

One of the biggest moves we made here in 2014 was to implement *Expandable*, an enterprise resource planning system designed for small manufacturers. This year, we'll use that system to make some important enhancements to our operation. For example, we will introduce scorecards to guide execution and get a better view of inventory. Our ultimate goal is to create a world-class supply chain operation.

Questions

Analyze the above case study and prepare a detailed note of your understanding about the case study.
