



# INDIAN INSTITUTE OF MATERIALS MANAGEMENT

## Post Graduate Diploma in Materials Management

June 2012

Paper 17

### ADVANCED SUPPLY CHAIN MANAGEMENT

Date: 15.06.2012

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

Max. Marks 100

Duration 3 hours

#### Instructions

1. The question paper is in three parts
2. Part A is compulsory. Each question carries one mark.
3. In Part B answer any 3 questions out of 5. Each question carries 16 marks
4. Part C is a case study with sub questions and it is compulsory.

Total marks-32

Total marks-48

Total marks-20

### PART A

Q1: Expand the following

8 Marks

- |           |         |
|-----------|---------|
| 1. MRP II | 5. GIS  |
| 2. QR     | 6. UPC  |
| 3. WTO    | 7. RFID |
| 4. BSC    | 8. RSP  |

Q2: Match A & B

8 Marks

- | A                           | B                          |
|-----------------------------|----------------------------|
| 1. F.W. Harris              | a. Delayed Differentiation |
| 2. Cross Docking            | b. 80/20 rule              |
| 3. Postponement             | c. Quality                 |
| 4. Differentiation Strategy | d. EOQ Model               |
| 5. Pareto Principle         | e. Walmart                 |
| 6. Automated identification | f. Unique products         |
| 7. NMTBSCT                  | g. Tiffin – Wallets        |
| 8. TQM                      | h. Barcode                 |

**Q3: State True or False****8 Marks**

1. E-procurement is not the mirror image of e-commerce.
2. Heuristics algorithms provide always optimal solutions.
3. Hybrid purchasing does not allow the firm to exploit the advantages of both the centralized & decentralized systems.
4. Blanket orders are generally made for small volume, but continuous-usage items.
5. All contracts even of small value should be formal.
6. As per bailment act, transporter carrying goods is called as bailer.
7. Generic Strategy of Focus is based on the firm choosing a broad competitive scope in a Focus industry.
8. "Expert Systems" fall under the umbrella of Artificial intelligence.

**Q4: Fill in the blanks in appropriate words ( each fill in the blank carries 1 mark)  
total 8 Marks**

1. 3 major types of information flows in SCM are \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_.
2. Value chain activities in a firm are comprised of \_\_\_\_\_ & \_\_\_\_\_ activities.
3. VED classification is based on \_\_\_\_\_ of the component.
4. 3 PL allows a firm to focus on its \_\_\_\_\_ competencies.
5. \_\_\_\_\_ is an option where buyer protects himself "in the future" by entering into two transactions, a purchase & a sale in two markets.

**PART B**

(answer any three 16 x3 = 48 marks)

**Q5: Write Short Notes on: (Any Four)****16 Marks**

1. Cross Docking
2. Postponement
3. JIT – Suppliers
4. Artificial intelligent system
5. Mass customization

**Q6:** **16 Marks**

- (A) Define Supply Chain
- (B) What are the key issues in supply chain? Discuss.

**Q7:** What do you understand by TCO? Explain in detail the different costs that should be considered in arriving at the TCO. **16 Marks**

**Q8: Differentiate between** **16 Marks**

- a) Push & Pull
- b) Centralized & Decentralized Distribution system

**Q9:** What is 'Customer Service Strategy'? Discuss in detail. **16 Marks**

**PART C**

**20 Marks**

**Q10:** ABC Company produces special parts for manufacturing TV. The details are:

|       |                                    |                  |
|-------|------------------------------------|------------------|
| I.    | Cost of part                       | = Rs1/each.      |
| II.   | Annual requirement                 | = 250,000 units  |
| III.  | Normal lead time to produce goods  | = 6 weeks        |
| IV.   | Demand                             | = 4810/week      |
| V.    | Std. 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                  | = 10 weeks       |
| X.    | Probability of lead time extension | = 0.25           |

**Calculate:**

a)EOQ

**4 Marks**

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

**8 Marks**

**8 Marks**

c) If supplier insists for 5 orders in a year with 15% discount, will you avail? Why? Give reasons with illustration.

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