

**INDIAN MARITIME UNIVERSITY**  
(A Central University established by an Act of Parliament in 2008)

**End Semester Examinations December 2017**

**MBA (ITLM/PSM)-SEMESTER III**  
**Logistics and Supply Chain Management (PG21T2301/PG22T2301)**

**Date: 18.12.2017**  
**Time: 3 hours**

**Max. Marks: 60**  
**Pass Marks: 30**

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Part- A (12X 1MARKS = 12 MARKS)

Answer All Questions.

- 1 The drawback of centralized inventory is:
  - a. that it undercuts the dispersed distribution concept.
  - b. that it increases the amount of inventory required.
  - c. strains the ability of the carrier network.
  - d. that it extends lead times and results in higher transportation costs
  
- 2 key performance indicators (KPIs) refer to
  - a. sporting events.
  - b. management's evaluation of supply chain staff
  - c. metrics to manage logistics operations
  - d. measuring output
  
- 3 Vertical collaboration refers to
  - a. collaboration among carriers and shippers.
  - b. collaboration among buyers and sellers in the supply chain
  - c. collaboration that moves up the supply chain.
  - d. collaboration with competitors
  
4. Customer service can be defined as
  - a. Anything that touches the customer
  - b. A philosophy.
  - c. Order fulfillment.
  - d. The SCOR model.
  
5. There are four strategies that firms can use to balance supply and demand; price, lead time, inventory, and \_\_\_\_
  - a. Production flexibility
  - b. Transportation

- b. Warehousing
- c. Customer Service

6. A push-based strategy works well for supply chains that focus on
- a. lean production
  - b the immediate delivery of off-the-shelf, low-cost, standardized goods
  - b. the anticipation of demand or without knowledge of customer orders.
  - c. work centers and offshore sourcing.
7. As the length and complexity of a supply chain increases, a firm's inventory levels will:
- a) Decrease
  - b) Stay the same
  - c) Increase
  - d) be equal to zero
8. The most important trade-off in logistics is between:
- a) Warehousing and packaging
  - b) Inventory and packaging
  - c) Transportation and inventory
  - d) Transportation and warehousing
9. All of the following are typical processes involved in supply chain management *except* \_\_\_\_\_.
- a. new product development
  - b. cash flow management.
  - c. supplier evaluation and selection
  - d. demand and supply planning
10. A critical outcome of the supply chain is to deliver
- a. profits.
  - b. the right product to the right place.
  - c. cost/value.
  - d. on management's expectations.
11. One of the major challenges of supply chain management is
- a. forward buying.
  - b. Pushing inventory back to vendors

- c. maintaining the visibility of inventory
  - d. building safety-stock inventory.
12. Logistics, in its simplest form,
- a. is a military term, as it was developed originally to supply the battlefield
  - b. does not involve customer service or other related functions
  - c. combines inbound logistics with the outbound logistics of physical distribution
  - d. is another term for transportation management

**Part- B (5 x 4 MARKS = 20 MARKS)**

**Answer ANY FIVE Questions. All Questions carry equal marks. (5x4=20)**

- 13) what does process integration mean and why it is difficult to achieve?
- 14) what is the difference between customer service management process and the customer relationship management process?
- 15) what is perfect order fulfillment? what is cash to cash cycle time?
- 16) Compare the concept of Vendor Managed Inventory with Just in Time production systems
- 17) what steps are to be taken for implementing Quick Response in logistics.
- 18) why should reducing the length of the supply chain also reduce the bullwhip effect?
- 19) Find an example of a product you have recently purchased. Identify the logistics tasks that would have to take place so that the product is available to you.

**Part- C**

**(Answer Question no 20 and any 3 of the remaining 5 questions (4x7 marks =28marks)**

**20) case study.**

Analyse the following case and answer the questions given below

Recently the unit general manager of Billings Equipment, Inc. instructed the supply management team to renegotiate existing agreements for a 10 percent reduction with major suppliers due to target costs exceeding expectations. Jeff Martin, a supply management engineer, was instructed along with the entire purchasing staff to contact his suppliers immediately with what they would view as very bad news. Jeff had to face his suppliers with this demand.

The organization had a history of impeccable ethical treatment of suppliers and was considered to be a leader in the industry. For two years, Jeff was actively involved in reducing costs and cycle times of his suppliers. Jeff's suppliers had invested many personal hours and sizeable expense to reach this point in time. It had evolved into a strained, but working, relationship.

During the start-up period of the program, a very aggressive timeline and target cost drove emotions to a frenzied pace. Early supplier involvement in prototype and testing activity was cultivated to encourage active participation in the development of this new product line by all that had equity in its future. Suppliers were pushed to the limit on material and tooling lead-times, exhausting goodwill and testing commitments.

Everyone involved, including suppliers, invested personal time and effort toward meeting the market timelines. Purchase agreements were negotiated, and parts now were being received to support production ramped-up toward market introduction. The push to production forced acceptance of early design of many components, which inhibited additional cost reduction. Customarily, 80 percent of cost reduction occurs during the design phase. Tooling was developed during early design configurations to meet the production schedule. As designs became frozen and cost information became more complete, the projected total costs were going to exceed target levels by as much as 20 percent. As the costs for the bill of materials (BOM) continued to rise above target levels, it became clear that this increase was not simply due to procedural or accounting errors, but rather represented true costs. The general manager realized the rising cost situation was beyond recovery and would impact the market pricing and success of the entire product line. At this time, Billings Equipment, Inc. had invested U.S. \$20 million to U.S. \$30 million in sunk costs for the plant and pre-production efforts. Something drastic would have to be done.

A letter was sent to suppliers on July 5 declaring the regrettable necessity to reduce prices by 10 percent within 30 days. Buyers were to follow up immediately by contacting their top 30 suppliers. The veiled threat for noncompliance to re-open previously negotiated agreements indicated a possible cancellation of the product line altogether, or at least a consideration of other sources of supply. Jeff believed he would be violating a trusted relationship based on the collaborative effort to meet demands over the past year. How could he carry this message to the suppliers?

Even with some additional eroding of supplier tolerance for concessions, Jeff succeeded within the 30 days to get agreement from four of his five major suppliers, which represented 80 percent of the cost of materials he purchased. About 20 percent of the suppliers complied promptly, within 30 days. Other buyers had mixed results. Everyone was uncomfortable moving the supplier relationships from a cost-based approach to a simple request for price reduction.

Shortly after the most faithful of the major suppliers reluctantly committed to cutting Prices, the general manager made an announcement during a strategy meeting with buyers. "Because some suppliers complied readily with the 10 percent price reduction," he said, "we are now going to push for an additional 5 percent." This implied that suppliers had padded prices and further reductions could have been done all along. In effect, the suppliers who had complied with the first request were to be penalized.

Jeff was now faced with an ethical situation pitting his responsibilities to the general manager against carefully developed supplier relationships.

Questions

1. If you were in Jeff's position, what would you have done to preserve relationships?
2. Describe the ethical issues involved.
3. What is your assessment of the general manager's approach to meeting target cost objectives?

- 21)** What is meant by Lead time in supply chain? How it influences inventory level?
- 22)** Explain various types of the global markets in terms of cost and influence of local factors. What are the challenges faced in global supply chain?
- 23)** What are the steps in developing a balanced score card? Compare it with SCOR model.
- 24)** How logistics and shareholder value are linked?
- 25)** Compare traditional organisations with logistics organisations. How the transformation can take place?
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