INDIAN MARITIME UNIVERSITY

(A Central University, Govt. of India)

End Semester Examinations –June/July 2019
Semester-III

M.B.A (Port and Shipping Management) /
(International Transportation & Logistics Management)

Logistics and Supply Chain Management (PG21T2301/PG22T2301)

Date: 17.06.2019 **Max Marks :60**
Time: 3 Hrs **Pass Marks: 30**

PART-A

(Answer all the questions) 12 X 1 = 12

1. Which of the following supply chain performance metrics measures the average percentage of orders that arrive on time, complete and damage-free?
   a) Total supply chain management costs
   b) Supply chain perfect order fulfilment performance
   c) Supply chain cash-to-cash cycle time
   d) Supply chain delivery performance

2. Lean production relies on
   a) pull-based systems.
   b) push-based systems.
   c) the Toyota production system
   d) just-in-time system.

3. A third-party logistics firm may be defined as
   a) an outsource service.
   b) a firm that owns trucks and warehouses.
   c) a firm that owns trucks and warehouses and provides computer support.
   d) an external supplier that performs or manages all or part of a company's logistics function

4. Lean supply chain is suitable for
   a) Perishable commodities
   b) Fashion goods
   c) Functional products
   d)Electronic goods

5. Activity_based costing method
   a) First assigns cost to goods and services and then to activities on how much each good or services uses them
   b) Is an approach to reduce total cost in the firm.
   c) Assigns cost only to activities which are variable
   d) First assigns cost to activities and then to goods and services based on how much each good or services uses the activities

6. Which of the following is NOT one of the four perspectives of the Balanced ScoreCard framework?
   a) Financial
   b) Internal Business Process
   c) Customer
   d) Reliability

7. The most important trade-off in logistics is between:
   a) Transportation and warehousing
   b) Warehousing and packaging
   c) inventory and packaging
   d) Transportation and inventory

8. As the number distribution centers are decreased in a distribution network, fixed costs will ____ and variable costs will ___.
   a) decrease, decrease
   b) decrease, increase
   c) increase, increase
   d) increase, decrease

9. Just in time concept (JIT) is similar to
   a) ABC analysis
   b) Vendor managed inventory
   c) SMED approach
   d) None of the above.

10. Functional organisations are concerned with
    a) Output focused market driven
    b) Output focused budget driven
    c) Input focused budget driven
    d) Input focused market drive

11. In CPFR approach
    a) Buyer owns inventory before purchase.
    b) Distributor receives maximum benefit
    c) Vendor and buyer together plan inventory levels
    d) will eliminate stock outs

12. Competitive advantage means
    a) To achieve operational excellence
    b) To introduce JIT and TQM
    c) Making specific choices to win in the market place
    d) Introduce cost reduction methods

PART-B

(Answer any five questions out of seven) 5 X 4 =20

13. What contributions do successful supply chains make to firms?

14. Explain the relationship between logistics and supply chain management?

15. What index can be used to measure customer service? What are its features?

16. Explain how a reduction in lead time can help to reduce inventory?

17. Identify the challenges faced by logistics in globalization.

18. What are some problems that can arise when each stage of a supply chain focuses solely on its own profits when making decisions ?

19. How do trade promotions and price fluctuations affect coordination in a supply chain? What pricing and promotion policies can facilitate coordination ?

PART-C

(Question No 20 is compulsory and any three questions to be answered from the remaining) 4 x 7 = 28

20. Define and discuss Activity Based Costing, including its impact on profitability

21. What are push and pull systems, and name at least one inventory management system that is a push or pull system.

22. 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

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

23. What is value stream mapping? How is it related to JIT and lean manufacturing?

24. Consider the supply chain involved when a customer orders a book from Amazon. Identify the push/pull boundary and two processes each in the push and pull phases.

25. Why has e-business been more successful in the PC industry compared to the grocery industry? In the future, how valuable is e-business likely to be in the PC industry