

GUJARAT TECHNOLOGICAL UNIVERSITY
MBA (IB)– SEMESTER III – EXAMINATION – WINTER 2019

Subject Code: 1539304**Date: 30/11/ 2019****Subject Name: Global supply chain and Logistic management****Time: 10:30 Am to 1:30 Pm****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1 Definitions** **14**
- (a) Order qualifiers
 - (b) Cost-productivity advantage
 - (c) Parts per million
 - (d) Dispersed Supply
 - (e) MAWB
 - (f) Back hauls
 - (g) Plimsoll line
- Q.2 (a)** Explain the relationship between SCM and logistics. Identify the differences and similarities. Is one a part of the other? How does one support the other? **07**
- (b)** Explain the differences between vertical integration and outsourcing. Identify the strategic advantages of each and explain how each position can be used to help supply chain strategy **07**
- OR**
- (b)** Supply chain risk requires a multidisciplinary approach to assess and manage contingencies. What are the benefits of being prepared to face a global supply chain risk? **07**
- Q.3 (a)** What is performance benchmarking process? Discuss the benchmarking implementation process. **07**
- (b)** Why would a firm want to measure supplier performance? Describe the kinds of measures that can be used to measure supplier performance. **07**
- OR**
- Q.3 (a)** Discuss three V-model of Inventory Management **07**
- (b)** It is said that between cities, railways offer the quickest transit for small parcels next only to airfreight at a very lower cost. Explain the reasons **07**
- Q.4 (a)** Explain logistics tasks involved in one service supply chain, say involving a hospital or restaurant. How different are these tasks versus those involved in a manufacturing supply chain? **07**
- (b)** Discuss the Adoption of HS Codes in India along with Classification of Items. **07**

OR

- Q.4 (a)** Quick Transport Logistics (QTL) is considering where to locate its warehouse to serve its northeast region. The search has been narrowed to two competing locations and QTL has decided to use Factor Rating to make their decision. They have listed the factors they consider important and assigned a factor score to each location based on a five-point scale. The information is shown below. Using the procedure for Factor Rating to decide which location is better. **07**

Factor	Factor weight	Location 1 Factor score	Location 2 Factor score
Facility cost	10	3	5
Taxes	15	2	4
Proximity to airport	30	4	1
Labor source	25	2	4
Facility size	20	3	3

- (b)** What are the various industry, competition and firm specific factors that could affect a global supply chain? What are the managerial levels available in handling the same? **07**

- Q.5** Buckeye Technologies is a manufacturer of semiconductors for mobile consumer electronic devices, such as laptop computers, smart phones, and digital cameras. Ms. Sabina Norton has been working at Buckeye Technologies for about a year as a production manager. The volatile demand of the semiconductor industry has been an obstacle in designing an accurate production schedule. The unstable demand causes the company to carry high amounts of safety stock and incur other types of wastes. Sabina is wondering if the operation can be modified to become more efficient.

Transistors are key components used in the manufacture of a semiconductor. One of the transistors of a cell phone semiconductor is sourced from Xiang, a supplier in China, with a lead time of two months. Buckeye Technologies usually carries enough of these transistors at the plant. When it runs out of them, however, they experience high levels of work-in-process (WIP) inventory and are unable to continue with production. Although this transistor can also be obtained from several suppliers in the United States, the cost is considerable higher compared to the cost of sourcing it from Xiang.

The semiconductors for laptop computers, smart phones, and digital cameras are produced differently, so every time the company needs to produce a different type of semiconductor, the operator is required to change the setting of the production machinery. This can be time consuming, and the company wants to be able to respond quickly to changes in demand. Sabina knows that there must be a way to reduce inventory, but at the same time she wants to keep a flexible production to keep up with the fast paced environment and the volatility of the demand.

Sabina has also noticed that the current design of the facility is not very efficient. Currently the facility production system is grouped by function and components move from function to function. There are about 350 steps in producing a semiconductor chip. Some functions of the facility are located at one end of the facility, while other functions are at the other end of the facility. This results in long waiting times between procedures. She is thinking about changing the design of the facility to one that will give more flow to the production process.

Sabina recognizes that there are a number of changes that must be made. She has heard of Lean as a method to reduce waste but is not sure where to begin

- Q.5** (a) What suggestions do you have for Sabina about working with suppliers and how would you address the sourcing issue from the Chinese supplier based on Lean principles? **07**
- (b) What should Sabina do about reorganizing the work environment? Should any layout changes be made and how do you think they should be implemented? **07**

OR

- Q.5** (a) How would you address the issue of equipment setup? How would you proceed? **07**
- (b) Describe the organizational culture of Lean. How can Sabina promote this at Buckeye? **07**
