

GUJARAT TECHNOLOGICAL UNIVERSITY
MBA– SEMESTER –III-EXAMINATION – WINTER-2023

Subject Code:4539297**Date: 04-12-2023****Subject Name: Logistics and Supply Chain 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.
4. Use of simple calculators and non-programmable scientific calculators are permitted.

Q.1 Explain following terms: 14

- a) Supply Chain Management
- b) Logistics
- c) Cross Docking
- d) 2-OPT and 3- OPT
- e) Internal v/s External Integration
- f) Transportation
- g) Quick Response Logistics

Q.2(a) Describe supply chain performance measures. 07**(b) Explain the basic concept of logistic and supply chain management. 07**

OR

(b) What is logistics supply chain management? Explain its objectives. 07**Q.3(a) State what is meant by 3PL and explain various types of 3PL service providers. 07****(b) Describe Reserve logistics with suitable examples. 07**

OR

Q.3(a) What do you understand by logistics cost analysis and total cost analysis? 07**(b) Evaluate the packaging and material handling decisions relevant to an e-commerce retailer of apparels. 07****Q.4(a) Which are the prominent transportation network design options? Explain, with applicability of different designs to different options. 07****(b) What constitute in facility location analysis? Critically evaluate the role of facility location analysis in supply chain management. 07**

OR

Q.4(a) Write a note on the role of technology in SCM. 07**(b) Discuss the significance of agility in supply chain quoting suitable examples. 07**

Q.5 Case Study: WAL-MART

Wal-Mart is an American multinational retailer corporation that runs chains of large discount departmental store and warehouse stores. It is the world's largest public corporation and retailer and also the biggest private employer in the world with over two million employees. It bis also one of the world's most valuable companies. At 10,130 retail units in 27 countries Wal-Mart serves customer more than 200 million times per week.

Sustainability and Green business process is making Wal-Mart a better company by reducing waste, lowering cost and driving innovation. New environmental measures were taken in October 2005 by Wal-Mart to increase energy efficiency and to become a greener retailer. As part of its aspiration goals, Wal-Mart aim is to be supplied 100% by renewable energy, zero waste, and sell products that sustain nature as well as the environment.

Sourcing is the most important process and plays a very vital role in the supply chain. If any company is focusing on green supply chain so it is very necessary for the company to know from where the material and component is coming, its manufacturing process, practices, wastage it creates, energy consumption and how much sustainable it is, as consumer also wants to know the entire life cycle of the product. It also helps customers to get more information and sustainability about the product which they want to buy.

Wal-Mart uses improved technologies and energy efficient truck fleets for the distribution of goods with the minimum impact on the environment. Wal-Mart is moving towards the goal of doubling the efficiency of its fleet by using technologies for innovative operational initiatives. Wal-Mart conducts trials for their transportation systems with alternative fuel sources including CNG and identifies opportunities to reduce cost of fuel and carbon impact on environment.

Packaging is very important for both manufacturer and the retailers. Reduction in product pack size helps manufacturer to save the cost of transportation, environment and packaging and on the other hand it is beneficial and helpful for the retailers to save the cost of storage and handling. Wal-Mart focuses in helping suppliers to develop sustainable solutions for smart product packaging so they can align this initiative with the corporate goal. They also proved that reduction in the packaging size and reusable packaging saves cost and also makes the product easier to store which reduce the number of carriers and saves transportation and energy/fuel costs.

(a) What are the issues to be addressed in the development of a sustainable supply chain for any Organization? **07**

(b) Critically evaluate the initiatives of Wal-Mart in the journey of a sustainable solution for its supply chain. **07**

OR

Q.5(a) How does sustainable initiative of Wal-Mart influences supply chain performance? **07**

(b) Does sustainable SCM initiative of Wal-Mart will give a competitive advantage? Agree or disagree? Justify with supportive arguments. **07**
