

# GUJARAT TECHNOLOGICAL UNIVERSITY

## INDUSTRIAL ENGINEERING

### B. E. SEMESTER: VII

Subject Name: **Logistics and Supply chain management**

**(Department Elective - I)**

Subject Code: **171505**

Teaching Scheme				Evaluation Scheme			
Theory	Tutorial	Practical	Total	University Exam (E)		Mid Sem Exam (Theory) (M)	Practical (Internal)
				Theory	Practical		
4	0	2	6	70	30	30	20

Sr. No	Course Content	Total Hrs.
1.	<b>Logistics management: .....</b> Introduction, Logistics system design, Demand planning, Multiple channel distribution, Multi-echlon system, Model development, Concept of warehousing, Methods of storage, Primary and secondary transportation, Logistics information system, Logistics costing	16
2.	<b>Supply chain management:</b> Overview, Supply chain basics, Decision phases in a supply chain, Planning and operations, Importance of supply chain process, Functional and organizational scope of SCM, Management of Demand and supply in SCM, Capacity, Inventory, market segments, Supply chain forecasting, Supply chain forecasting management performance (SCFMP). Collaborative planning forecasting and replenishment (CPFR).	32
	<b>Drivers of outsourcing:</b> Procurement approaches to SCM, Operational, strategic and global outsourcing, Production supply chain model, Intrafirm production, Build to order production, Lean, JIT, Dispersed production Relevance and role of supply chain coordination,	8
	<b>Bull whip effect:</b> Modelling the impact of information on inventories, Role of Marketing, sales and R& D in SCM, Information systems and technology in supply chain, E-Business models: B to B, B to C. Managing service. (8 Hrs.)	8

## **Reference Books:**

1. Blanchard, B.S., Logistics Engineering & management, Prentice Hall, New Jersey, 1997
2. Lambert, D.M., Stock J.R., Fundamentals of Logistics management, Irving McGraw Hill, 1998
3. Sunil Chopra and Peter Menidl, Prentice Hall, 2001, Supply chain management-Strategy planning and operations.
4. Manish Govil and Jean Marie Prop, Supply chain design and management: Statistical and Tactical perspectives, Academic press, San Diego.
5. Sridhar Tayur, Ram Ganeshan and Micheal Magazine, Quantitative models for supply chain management, Kluwer Academic publishers, 2002