JYOTI NIVAS COLLEGE AUTONOMOUS

Programme: B.Com LSCM

OPERATIONS MANAGEMENT

Course Code : 24IVBLSM04

Semester: IV

No. of Credits: 4 **No. of Hours: 60**

COURSE OBJECTIVES:

- To familiarize the students with the operations in the logistics sector.
- To bring about awareness among students with changes and innovations in the operations of logistics.
- To identify the elements of operations management and various transformation processes to enhance productivity and competitiveness

LEARNING OUTCOMES:

- Analyze and evaluate various facility alternatives and their capacity decisions to develop a balanced line of production and scheduling and sequencing techniques in operation environments.
- Plan and implement suitable materials handling principles and practices in the operations. Plan and implement suitable quality control measures in Quality Circles to TQM.
- Evaluation process of transportation cost in operation management.

UNIT 1: Introduction to Operations Management **8 HRS**

Operations Management: Introduction and overview, Operations Management Strategy framework, Understanding similarities and difference among products, goods and services Historical evolution of operations management-Changes and Challenges

UNIT 2: Operations strategy and system design **16 HRS**

Product Strategy and integrated product development-Process Strategy-Capacity Planning Decisions, Facilities Location Strategies. **fac**ilities Layout and Material Handling Strategy-Group Technology, Flexible manufacturing system Assembly line balancing-Project Management- CPM - PERT (concept & problems)- Line of Balance (LOB)

UNIT 3: Productivity and Quality tools **14 HRS**

Productivity Concepts :Quality Circle, Kaizen and other SGA-Value analysis and Value Engineering Total Quality management-Statistical Quality Control-Maintenance Planning and Control (Reliability, availability, maintainability)-Work Study-Method study and Work Measurement Learning Curves, Work Sampling-Service Operations Management-Lean systems.

UNIT 4: Planning and managing operations **10 HRS**

Demand Forecasting, Value chain and Supply chain Management-Purchasing, vendor selection and material management-Inventory Management & Just-in-Time Systems Materials Requirement Planning ,MRP II and ERP-Aggregate Operations Planning Scheduling, sequencing and dispatching

UNIT 5: Transportation and Assignment Models **12 HRS**

Definition of the transportation model. Balanced / Unbalanced, Minimization / Maximization. Determination of the initial basic feasible solution using (i) North-West Corner Rule (ii) Least cost method and (iii) Vogel‟s approximation Method for balanced and unbalanced transportation problems. Optimality Test and obtaining of optimal solution. (Considering per unit transportation cost)- Assignment Problem – Hungarian method of solving Assignment Problems

SKILL DEVELOPMENT ACTIVITIES:

- Go to any two logistics company or freight management company and compare their operations.
- Find out about the lean management techniques used in operation management.

BOOKS FOR REFERENCE:

1. S. Anil Kumar and Suresh, Operations Management, New Age International publishers
2. Chase and Jacob, Operations Management –Mcgraw Hill Publishers
3. Gangan Deep Sharma and Mandeep Mehendu, Production and Operations Management, Bangalore University
4. Prem Kumar Gupta, Problems in Operation Research,S.Chand.
5. Rajashekaran and Lalitha –Corporate Accounting – Pearson, New Delhi, 2011.
6. S. Anil kumar, V. Rajesh kumar and B. Mariyappa – Advanced Financial Accounting – Himalaya Publishing House

Note: Latest edition of text books may be used.