

# PG DIPLOMA IN LOGISTICS AND SUPPLY CHAIN MANAGEMENT

Non-Semester

(With Effect from the Academic Year 2013-14)

## ELIGIBILITY FOR ADMISSION

Candidates who apply for the degree of PG Diploma shall possess the following qualifications.

### (a) AGE LIMIT:

There is no upper Age Limit.

### (b) QUALIFICATION:

Any Degree

## 3. DURATION OF THE COURSE

The course will be conducted for one year

**3.1. EXAM** : There will be an examination conducted by the University at the end of the year.

**3.2. Passing minimum** : 50

**3.3. MEDIUM OF INSTRUCTION:** The Medium of instruction will be English.

## Course Profile

PG Diploma in Logistic and Supply Management

Supply Chain Management
Storekeeping & Warehousing
Logistics Management
Total Quality Management
Purchasing & Inventory Management
Technology Management
Enterprise Resource Planning

## **PAPER I SUPPLY CHAIN MANAGEMENT**

**Objectives:** To impart knowledge and understanding to students on Supply Chain Management and its relevance to today's business decision making.

**UNIT I:** Supply Chain definition – Objectives – Types – Various definitions – Drivers – Need for SCM – SCM as a profession – SCM decisions and skills – Strategy formulation in SCM – Value in Supply Chain – Tradeoffs – CRM Strategy relationship matrix

**UNIT II:** Strategic Sourcing – Source evaluation – collaborative perspective – Buyer-Supplier Relationship – Partner Selection – develop of Partnership – importance of inventory – imbalances – uncertainties – inventory costs – inventory turnover ration

**UNIT III:** Transportation Selection – Tradeoff – modes of transportation – models for transportation and distribution – factors affecting network effectiveness – 3 PL advantages – Indian transport infrastructure – IT solutions – EDI, e-Commerce, e-Procurement – Bar Coding and RFID technology

**UNIT IV:** Critical business processes and information systems – DBMS – benefits of ERP –information system and bull whip effect – SCM software packages – modeling concepts – Vendor analysis model – Coordinated SCM – Simulation modeling- Reverse Vs forward supply chain – types of reverse flows – collaborative SCM's andCPFR – agile systems – sources of variability – characteristics – supplier interface – internal processes

**UNIT V:** Supply Chain Management and profitability – quality management – mass customization and globalization – ethical Supply Chains – e-business and SCM – Balanced Score Card – Benchmarking, Performance measurement

## **REFERENCE**

Mohanty R.P, S.G Deshmuki “Supply Chain Management” Biztantra, New Delhi

## **PAPER II STORE KEEPING AND WAREHOUSING**

Objectives: To familiarize the students with Warehousing, its importance, valuation, inventory stores management to provide adequate knowledge to minimize the cost and improve the overall efficiency of the operation.

**UNIT I:** Warehousing Management - Objectives of Stores – Location and Layout – Prevention – Management of Receipts – Issue Control – Stores Documentation

**UNIT II:** Stock Valuation And Verification - Need for Valuation – Methods of Valuation – FIFO – LIFO – Average Price – Weighted Average – Standard Cost – Replacement Price – Stock Verification – Process of Verification

**UNIT III:** Disposal of Obsolete and Scrap items - Management of SOS – Categorization of Obsolete/Surplus – Reasons for Obsolescence – Control of Obsolescence – Control of Scrap – Responsibility for Disposal – Disposal Methods

**UNIT IV:** Insurance: Risk Management - Buyer's Interest – Marine Insurance – Inland Transit Insurance – Stores Insurance – Contractors All Risk Insurance – Miscellaneous Insurance – A to Z Claims Procedure – Loss Minimization- Spare Parts Management - Salient Features of Spares – Inventory Control of Spares – Categorization of Spares – Provisioning of Spares – Pricing of Spares – Relevance of Maintenance – Maintenance Costs

**UNIT V:** Ethics In Materials Management - Importance of Ethics – Business Ethics – Ethics in Buying – Code of Ethics – Problems in Ethics – Backdoor Selling – A to Z Tips for Ethical Buying – Professionalization.

### **REFERENCE**

Gopalakrishnan P.– Purchasing and Materials management – Tata McGraw Hill – 23rd Edition – 2008.

## **PAPER III LOGISTICS MANAGEMENT**

Objectives: The Objective of this course is to gain the knowledge of possibilities of efficient optimization and management of operation in Logistics Management and also the ability to apply them in the enterprise reality.

**UNIT I:** The Logistics of Business – The Logistical Value Proposition – The Work of Logistics – Logistical Operating Arrangements – Flexible Structure – Supply Chain Synchronization,

**UNIT II:** Transport Functionality, Principles and Participants – Transportation Service – Transportation Economics and Pricing – Transport Administration – Documentation

**UNIT III:** International Logistics and Supply Chain Management: Meaning and objectives, importance in global economy, Characteristics of global supply chains,: Global Supply Chain Integration – Supply Chain Security – International Sourcing – Role of Government in controlling international trade and its impact on Logistics and Supply Chain.

**UNIT IV:** International Insurance – Cargo movements – water damage – Theft – Privacy – pilferage – Other risk – perils with air shipments – Risk Retention – Risk Transfer – Marine Cargo Insurance – Coverage A,B,C classes – Elements of air freight Policy – Commercial Credit Insurance – Size of Vessels, Tonnage, Types of vessels- Container, Combination ships – Non vessel operating carriers

**UNIT V:** International Air transportation – Types of aircrafts – Air cargo Regulations – Truck and Rail Transportation – Inter model – pipe lines – Packaging objectives – TCL,LCC – Refrigerator – goods – customs duty – Non Traffic barriers – customs cleaning process – International logistics Infrastructure

### **References:**

1. Bowersox, Closs, Cooper, Supply Chain Logistics Management, McGraw Hill.
2. Burt, Dobbler, Starling, World Class Supply Management, TMH.
3. Donald J Bowersox, David J Closs, Logistical Management, TMH

4. Pierre David, “International Logistics”, Biztantra.
5. Sunil Chopra, Peter Meindl, Supply Chain Management ,Pearson Education, India.

## **PAPER IV TOTAL QUALITY MANAGEMENT**

Objectives: The Objective of this course is to gain the knowledge of possibilities of efficient optimization and management of operation using TQM to improve the overall efficiency of the firm.

**UNIT I:** Total Quality Management Evolution – Definition of Quality – Dimensions – QC- QA – QP Concepts –Quality Management – Cost of Quality Failure Cost – Reducing Costs – Juran’s model – Analysis of COQ for improvement .

**UNIT II:** Definition of TQM – Elements – Deming’s 14 points – TQM tools and techniques – Planning phase of TQM – Barriers to TQM implementations.

**UNIT III:** Service quality – Features- customers delight – Kano model – Perceived Quality – Employee Involvement –Employee Motivation –Team work – Effective Communication – Training and Motivation -Performance Appraisal.

**UNIT IV:** Continuous process improvement – Juran’s Trilogy – Kaizen – BPR and TQM – supplier importance Selections. Standards – Quality audit –supplier rating systems – Balanced score card. - Process Control –Flow Charts – Scatter Diagram –Pareto Chart – Control Chart – Central Limit Theorem – Six Sigma , Definitions, Origin ,Process Models

**UNIT V:** Benchmarking – Type, Process – QFD – Taguchi’s Loss Function – Total Productive Maintenance- Quality systems – ISO 900 – QMS – Management responsibility – Environmental management systems 14001 –Quality awards – Deming price European and Indian quality awards.

## **REFERENCE**

Dale H. Besterfield, Carol Besterfield, Glen Besterfield and Mary Besterfield – Total Quality Management – Prentice Hall of India – Third Edition – 2007

## **PAPER V: PURCHASING AND INVENTORY MANAGEMENT**

**Objectives:** The Objective of this course is to gain the knowledge of possibilities of efficient optimization and management of operation in Purchasing and Inventory Management and also the ability to apply them in the enterprise reality to improve the overall efficiency of the firm.

**UNIT I:** Purchase policy- Rate and Running Contract – Subcontracting- Systems Contract – Stockless purchase –Buying seasonal items – Forward Buying – Hedging – Purchasing Activities – Indent Status – A to Z of Purchase Order –Transportation – Incoming Inspection – Bill settlement –Documentation.

**UNIT II:** Meaning of Right Price – Price Analysis – Determination of Right Price – Influencing Factors on Pricing – Classification of Pricing – Price Forecasting - Right Place – Purchase Budgets – Budgetary control – Need Identification Problems – Definition of lead time Elements- Cost Reduction and Lead time.

**UNIT III:** Relevance of Good Supplier - Advantages of Good Relations –Prerequisites – Evaluation of Suppliers – The Buyers Role – Role of the Vendor –Relevance of Good Suppliers – Need for vendor evaluation – Goals of Vendor Rating – Advantages of Vendor Rating – Parameters of Vendor Rating.

**UNIT IV:** Role of Material Management – Classes of Material – Materials and Profitability – Profit Center Concept – Material Objective –Centralized Purchasing- Decentralizing – Delegation of Powers – Definition of Material Planning –Bill of Material – Material Requirement Planning – Importance of Material Research- Definition – Advantages of Materials Information System .

**UNIT V:** Codification – Classification – Methodology–Requirement of codes – Coding Structure and Design –Advantages - International Codification – Cost and Consequences – Right Quantity – Economic Ordering Quantity – Derivations of EOQ.

## **REFERENCE**

Gopalakrishnan P.– Purchasing and Materials management – Tata McGraw Hill

## **PAPER VI: TECHNOLOGY MANAGEMENT**

**Objectives:** To help students understand Evolution of Technology, Concepts, basic functions and recent trends Technology Management concepts and practices for better business decisions.

**UNIT I:** Technology and Society – Technology in business context – Strategic technology process – Plan – Vision, Mission and Objectives

**UNIT II** Technology origin and evolution – Tailoring technology to fit specific industry requirements – Organization redesign – Organizational re-engineering – Financial considerations for technology Planning.

**UNIT III:** Technology Forecasting – Need – Methodologies: - Trend Analysis, Analogy, Delphi, Soft System Methodology, Mathematical Models, Simulation, System dynamic, S-curve, Role of Technology Information Forecasting and Assessment Council (TIFAC).

**UNIT IV:** Dissemination of technology information- and strategic planning - Technology choice and evaluation methods – Analysis of alternative technologies - Implementing technology programmes.

**UNIT V:** Intellectual Capital - An introduction to Intellectual Property Right - Patent - Copyrights - Trademarks and other issues.

## **REFERENCES**

1. Betz, Frederic, 1996, Strategic Technology Management, New Delhi, McGraw Hill.
2. Gerard H. Gaynor, 1996, Handbook of Technology Management – McGraw-Hill.
3. Robbert Szakonyl, 2006, Handbook of Technology Management – Viva books private limited.

4. Vijay Kumar Khurana, 2007, Management of Technology and Innovation, Ane books India, Chennai

## **PAPER VII ENTERPRISE RESOURCE PLANNING**

Objectives: To familiarize the students with ERP, ERP Module, SCM and CRM and its application in business related decisions.

**UNIT I:** Overview of enterprise systems – Evolution - Risks and benefits - Fundamental technology - Issues to be consider in planning design and implementation of cross functional integrated ERP systems.

**UNIT II;** Overview of ERP software solutions- Small medium and large enterprise vendor solutions, BPR, Business Engineering and best Business practices - Business process Management. Overview of ERP modules -sales and Marketing, Accounting, Finance, Materials and Production management etc

**UNIT III** Planning Evaluation and selection of ERP systems-Implementation life cycle – ERP implementation, Methodology and Frame work- Training – Data Migration. People Organization in implementation-Consultants, Vendors and Employees-Case studies.

**UNIT IV** Maintenance of ERP- Organizational and Industrial impact; Success and Failure factors of and ERP Implementation -case studies.

**UNIT V** Extended ERP systems and ERP bolt –on -CRM, SCM, Business analytics etc-Future trends in ERP systems-web enabled, Wireless technologies so on-Case studies.

## **REFERENCES**

1. Alexis Leon, Enterprise Resource Planning, second edition, Tata McGraw-Hill, 2008.
2. Alexis Leon, ERP demystified, second Edition Tata McGraw-Hill, 2006.
3. Jagan Nathan Vaman, ERP in Practice, Tata McGraw-Hill, 2008
4. Mahadeo Jaiswal and Ganesh Vanapalli, ERP Macmillan India, 2006.
5. Summer, ERP, Pearson Education, 2008.