

SEMESTER VI (Supply Chain)

0201109: SUPPLY CHAIN MANAGEMENT

Full Marks: 100

Supply Chain Management

Marks: 12

Introduction; Supply Chain; Supply Chain Management; Objective; Importance; Activities; Decision Phases in a Supply Chain; Process View of Supply Chain; Linking Competitive (Business) and Supply Chain Strategies; Supply Chain Drivers; Barriers of Supply Chain Management; Scope of Supply Chain Activities; Marketing Mix Model

Designing the Supply Chain Network

Marks: 12

Introduction; Role of Distribution Network; Factors Influencing Distribution Network Design; Design Options for a Distribution Network; E-business and its Impact: Advantages of E-business, Disadvantages of E-business; Distribution Networks in Practice; Distribution Network Design in the Supply Chain; Factors Affecting Network Design Decisions; Supply Chain Model

Designing and Planning Transportation Networks

Marks: 14

Introduction; Transportation in Supply Chain; Importance; Role of Transport in Supply Chain: Transportation Modes in Supply Chain; Transportation Infrastructure and Policies; Design Options For Transportation Network; Tailored Transportation; Trade-off in Transportation Design; Routing and Scheduling in Transportation; Making Transportation Decisions in Practice

Sourcing and Pricing

Marks: 12

Introduction; Sourcing; In-house and Outsource; 3PL and 4PL; Benefits of Effective Sourcing Decisions, Supplier Scoring and Assessment: Scoring Suppliers, Ranking Suppliers; Supplier Selection; Design Collaboration; Procurement Process; Sourcing Planning and Analysis; Pricing and Revenue Management for Multiple Customers; Perishable Products and Seasonal Demand

Information Technology in the Supply Chain

Marks: 12

Introduction; Supply Chain IT Framework; Role of Information in Supply Chain; Customer Relationship Management (CRM); Internal Supply Chain Management; Supplier Relationship Management; Transaction Management; Enterprise Resource Planning (ERP); E-commerce; Supply Chain Information Technology in Practice

Coordination in a Supply Chain

Marks: 12

Introduction; Lack of Supply Chain Coordination; Bullwhip Effect; Managerial Levers; Building Strategic Partnerships and Trust; Continuous Replenishment Program (CRP) and Vendor Managed Inventory (VMI); Collaborative Planning, Forecasting and Replenishment (CPFR)

Dimensions of Logistics

Marks: 12

Introduction; Macro and Micro Dimension: Macro Dimension; Micro Dimensions; Logistics Activities; Approach to Analysing Logistics Systems; Logistics and Systems Analysis; Techniques of Logistics System Analysis; Factors Affecting the Cost and Importance of Logistics

Demand Management and Customer Service

Marks: 14

Introduction; Outbound to Customer Logistics Systems; Supply and Demand Relationship; Graphical Representation of Supply and Demand Relationship; Demand Management; The Demand Management Process; Demand Forecasting; Demand Planning; Demand Forecasting Error; CPFR; Customer Service; Cost of Stock-outs; Channels of Distribution

Reference Books:

1. Meredith, J.R., & Shafer, S.M., 2007. *Operations Management for MBAs*. John Wiley and Sons, New York, 3rd ed., p.445.
2. Mohanty R.P., & Deshmukh S.G., 2005. *Supply Chain Management (Theories & Practices)*, Dreamtech Press, p.376.
3. Rushton A., Croucher P., Baker P., 2006. *The handbook of logistics and distribution management*, Kogan Page Publishers, 3rd ed., p.612.
4. Shah J., 2009. *Supply Chain Management: Text and Cases*, Pearson Education India, ISBN 8131715175, 9788131715178, p.472.
5. Tyndall, G., 1998. *Supercharging Supply Chains: New Ways to Increase Value Through Global Operational Excellence*. John Wiley and Sons, New York, p.269.
6. Mentzer J. T., 2004. *Fundamentals of supply chain management: twelve drivers of competitive advantage*, Sage Publications, p.293.

0201061: LEGAL ASPECTS OF SUPPLY CHAIN MANAGEMENT

Full Marks: 100

The Indian Contract Act, 1872

Marks: 10

Introduction; Definitions; Role of Communication in Contracts; Essentials of a Valid Contract; Contract of Bailment: Duties of the Bailee, Rights of a Bailee; Contract of Agency; Rights/Authorities of an Agent: Duties of an Agent, Sub-Agent, Types of Agents, Termination of Agency; Few Terms in Indian Contract Act, 1872

Negotiable Instruments Act, 1881

Marks: 12

Introduction; Characteristics of a Negotiable Instrument; Promissory Note: Format of a Promissory Note; Bill of Exchange; Cheque: Characteristics of a Cheque; Demand Draft; Modes of Negotiation: Types of Endorsements, General Rules Regarding Endorsement, Negotiation Back, Crossing, General Crossing, Special Crossing, Not Negotiable Crossing, Account Payee Crossing, Double Crossing; Bouncing of a Cheque– a Criminal Offence: Format of Notice, Offences by Companies, Cognisance of Offences, Mode of Service of Summons, Evidence on Affidavit; Few Terms in Negotiable Instruments Act, 1881

The Sale of Goods Act, 1930

Marks: 9

Introduction; Essentials of a Contract of Sale; Difference Between Sale and Agreement to Sale; Conditions and Warranties: Caveat Emptor; Rights of an Unpaid Seller: Unpaid Seller's Lien, Right of Stoppage in Transit; Few Terms in Sales of Goods Act, 1930

The Standards of Weights and Measures Act, 1976

Marks: 12

Introduction; Provisions Applicable to Every Part (Part I); Establishment of Standards of Weights and Measures (Part II): Standard Units; Physical Representation of Standard Units; Standards of Weights and Measures; Custody and Verification of Standard Equipments; Import And Export of Weights and Measures (Part V): Registration of Exporters and Importers, Export and Import of Weights, Measures and Commodities in Packaged Form; Offences and Their Trial (Part VI); Few Terms in Standards in Weights and Measures Act, 1976

The Consumer Protection Act, 1986

Marks: 10

Introduction; The Salient Features of the Act; Section 2: Definitions: Additional Information; District Forum; State Commission; National Commission; Few Terms in Consumer Protection Act, 1986

The Motor Vehicles Act, 1988

Marks: 8

Introduction; Act 59 of 1988; Definitions; Licensing of Drivers of Motor Vehicles; Licensing of Conductors of Stage Carriages; Registration of Motor Vehicles; Few Terms in Motor Vehicles Act, 1988

Insurance Law

Marks: 10

Introduction; Indian Insurance Industry: Types of Insurance; Motor Vehicle Insurance: Liability Only Policies, Package Policy; Marine Cargo Policy; Few Terms in Insurance Laws

Taxation Laws Relevant to SCM

Marks: 15

Introduction; Income From Salary; Income From Business; Income From Capital Gain; Tax Deduction at: General Guidelines Regarding TDS; Payment of Advance Tax; Service Tax; Sales Tax; Central Excise Act; Central Excise Valuation (Determination of Price of Excisable Goods) Rules, 2000; Few terms in Taxation Laws Relevant to SCM

Labour Laws

Marks: 14

Introduction; Definitions; Important Provisions of Contract Labour Act; Registration of Establishments Employing Contract Labour; Licensing of Contractors; Welfare and Health of Contract Labour; Penalties and Procedure; The Minimum Wages Act, 1948; Workmen's Compensation Act, 1923: Amount of Compensation; Few Terms in Labour Laws

Reference Books:

1. Campbell, D., 2008. *Remedies for International Sellers of Goods*, Volume II. Yorkhill Law Publishing. pp.135–156.
2. Chopra, S. and Meindl, P., *Supply Chain Management*.
3. Gulshan, S., 2005. *Business and Corporate Laws For C. A. Professional Examination-2*. New Age International.
4. Pathak, 2007. *Legal Aspects of Business*. Tata McGraw-Hill Education. 573 pages.
5. Sudhakaran, E., 1996. *Doctor in Consumer Court: The Consumer Protection Act, 1986*. D.C. Books. 199 pages.

0201121: QUALITY MANAGEMENT

Full Marks: 100

Introduction to Quality Systems

Marks: 18

Introduction; Importance of Quality; Levels of Quality; Quality and Financial Performance; History of Quality; Quality Costs- Types and Categories: Nature of Costs; Quality Control: Objectives of Quality Control, Benefits of Quality Control, Quality Control and Inspection; Quality and Competitive Advantage: Use of Information for Competitive Advantage, Competitive Advantage, Role of Information in Competitive Environment, Porter – Miller Postulates, Changes in Industry Structures, Spawning of New Business, Functional Uses, Strategic Uses; Total Quality Management (TQM): The Importance of Customer-Supplier Relationships-Quality Chains, Main Principles of TQM, Introducing TQM into a Business; Taguchi Loss Function

Statistical Process Control

Marks: 17

Statistical Process Control; Statistical Process Control Chart Basics: Variable Control Charts, XBAR/S Chart vs. XBAR/R Chart, S Charts (Standard Deviations), R Chart (Ranges), I Chart (Individuals), Attribute Control Charts, P Chart vs. NP Chart, P Chart (Proportion Defective - %), NP Charts (Number Defective – n), C Charts, U Chart; Extraction of Information; Capability Index; Individual – X and Moving Range Charts; An SPM/TQM Implementation Model; The Seven Basic Tools of Quality: Flowcharts, Check Sheets, Histograms, Pareto Analysis, Cause and Effect Diagram, Scatter Diagram, Control Charts

Problem Solving Techniques for Quality Management

Marks: 15

Introduction; Six Sigma Overview: The Six Sigma Methodology, Strategies for Six Sigma Introduction; Pareto Analysis; Failure Modes and Effects Analysis (FMEA): Types of FMEAs, FMEA usage, Benefits of FMEA, FMEA Timing, FMEA Procedure, Reliability, Stages of FMEA, Other Types of FMEA; Brainstorming: Usage Of Brainstorming, The Steps In Brainstorming Process, Basic Principles Of Brainstorming; The Deming Cycle, Juran's Improvement Program

Strategic Quality Management

Marks: 15

Total Quality Management (TQM): History for TQM, Basic Concept of TQM, Structure of TQM, Key Facets of TQM Integrative Focus are the PIs, Principles of TQM; Total Company Involvement; Technical and Managerial TQM: Implementation of TQM, Quality Council, Quality Statements, Strategic Planning, Annual Quality Improvement Program, Barriers to TQM Implementation; Philosophies of TQM

Reliability

Marks: 17

Defining: Evolution of the Field of Reliability, Reliability Measurement, Reliability Planning, Factors affecting Reliability; Product Life Characteristic Curve; Reliability Function: Scope, Objectives, The Strategic Importance of Maintenance and Reliability; Reliability Engineering: Standardisation, Redundancy, Physics of Failure, De-rating Practice, Reliability Testing, Burn-in, Failure Mode and Effect Analysis, Fault Tree Analysis (FTA); Types of Reliability: Inter-Rater or Inter-Observer Reliability, Parallel-Forms Reliability, Internal Consistency Reliability; Comparison of Reliability Estimators

Health and Safety

Marks: 18

Introduction; Theory and Hypotheses: ISO 9001 and Changes in Plant Scale, ISO 9001 and Wages, ISO 9001 and Occupational Health and Safety; Classification of Hazards- ISO 9000: Hazards Analysis, Critical Control Points and

Control Measures Hazard Analysis, Classification of Hazard According to the Risk and Severity (Hazard Index), Assessment of Risk In Hazard Analysis; Key Elements of Successful Health and Safety Management: Policy and Commitment, Planning, Implementation and Operation, Measuring Performance, Auditing and Reviewing Performance; Codes of Practice: Regulations, How Regulations Apply, What Form Do they Take?, The Relationship between the Regulator and Industry, What Next?; The Statement of Health and Safety Policy: Basic Objectives and General Content of Statement, Organisation (People and their Duties), Arrangements (Systems and Procedures)

Reference Books:

1. Management: Strategies for Cost-Effective Regulatory Compliance, Lanchester Press Inc.
2. Ireland, L.R., 2007. Quality Management for Projects and Programs, Project Management Institute.
3. Leemis, L. M., 2009. Reliability: Probabilistic Models and Statistical Methods, Lawrence Leemis.
4. Montgomery, D. C., 2008. Introduction to Statistical Quality Control, 6th ed., Wiley.
5. Nemoto, M. and Lu, D., 1987. Total Quality Control for Management: Strategies and Techniques from Toyota and Toyoda Gosei, Prentice Hall Trade.
6. Norton, M., 2006. Quick Course in Statistical Process Control (Net Effect), 1st ed., Prentice Hall.
7. Alexander, W. F. and Serfass, R. W., 1998. *Futuring Tools for Strategic Quality Planning in Education*, Amer Society for Quality.
8. Burgelman, R., Christensen, C. and Wheelwright, S., 2008. *Strategic Management of Technology and Innovation*, 5th ed., McGraw-Hill/Irwin.

0201099: JUST-in-TIME AND LEAN

Full Marks: 100

Introduction to Just in Time (JIT)

Marks: 15

Introduction: History and Philosophy, Cultural Aspect; Just in Time (JIT) Approaches: Cycle Time Reduction, Waste Reduction, Flow Breakdowns; Scope: JIT Application Profile, Seven Wastes in JIT; Elements of JIT: People Involvement, Plants, Systems, Purchasing; Goals; Benefits and Limitations;; Implementation of Concept: Keys to Successful Implementation of JIT; Understanding and Controlling Variation: Sources of Variation, Causes of Variation, Variability, Forms of Variability, Responses to Variability, Reducing Variability

Push and Pull Systems

Marks: 20

Introduction to Materials Requirement Planning (MRP) “Push” System: Need for MRP, Terms Used in Material Resource Planning (MRP); Basic Material Requirement Planning Concepts; Factors Affecting the Computation of MRP; Objectives of MRP System; Prerequisites and Assumptions of MRP; Inputs to MRP: Master Production Schedule (MPS), Bill of Material (BOM), Inventory Record File; MRP Outputs: Primary Outputs, Secondary Outputs, Inventory Forecast; MRP Logic in Brief: Advantages and Disadvantages of MRP; Explaining Push and Pull Models: Advantages of “Push” Model, Disadvantages of “Push” Model, Understanding the Pull Model, Advantages of “Pull” Model, Disadvantages of “Pull” Model; Evaluation of MRP Push versus JIT Pull: Combining MRP and JIT

Just-In-Time (JIT) and Competitive Advantage

Marks: 15

Relationship between JIT and Competitive Advantage: JIT Contribution to Competitive Advantage; Main Advantage of Material Requirement Planning; MRP and JIT Comparison; Advantages and disadvantages of JIT and MRP: Advantages of JIT, Disadvantages of JIT, Limitations and Advantages of MRP; Limitations and Implementation Barriers of JIT

JIT Layout

Marks: 15

Plant Layout: Objectives, Principles; Classification: Process Layout, Product Layout, Combination Layout, Fixed Position Layout, Group Layout (Cellular Layout); Service Layout; JIT Layout: Distance Reduction, Increased Flexibility, Impact on Employee, Reduced Space and Inventory; JIT Layouts and Design Flows; JIT Applications for Line Flow; JIT Applications for JIT Shops

SMED and Kanban

Marks: 20

Introduction to Single Minute of Die (SMED): History of SMED; Implementation of SMED: Formal Method of SMED; Introduction to Kanban: A Brief History of Kanban, Reasons for Implementing Kanban Scheduling, Kanban Implementation Process, Keys to successful Implementation of Kanban, Forming Kanban Team; Conduct Data Collection: Gather Data, Analyse the Data; Size the Kanban: Determining the Replenishment Cycle, Implications of Scrap, Unplanned Downtime and Changeover Times on Replenishment Intervals, Calculating the Buffer, Calculating the Number of Kanban Containers, Perform a Reality Check; Developing a Kanban Design; Training for Kanban: Developing the Training Material, Serving as a Coach and Mentor, Initial Start-up and Common Pitfalls; Auditing the Kanban; Improving the Kanban

Lean Systems

Marks: 15

Introduction to Lean Manufacturing: Objectives of Lean Manufacturing, Key Principles of Lean Manufacturing, Elements of Lean, Characteristics of Successful Lean Manufacturing, Advantages and Disadvantages of Lean Manufacturing, Lawson Lean Manufacturing Solutions, Nine Myths about Lean; History of Lean System: Lean Manufacturing Tools and Techniques, Cellular Manufacturing, Continuous Improvement, Just-In-Time, Production Smoothing, Standardisation of Work, Total Productive Maintenance, Other Waste Reduction Techniques; Implementing Lean

Reference Books:

1. Basu, R., 2005. *Total Operations Solutions*. Butterworth-Heinemann.
2. Boyer, K. & Verma, R., 2009. *Operations and Supply Chain Management for the 21st Century*. South-Western College Pub.
3. Brown, S. 2000. *Strategic Operations Management*. Butterworth-Heinemann.
4. Carreira, B., 2004. *Lean Manufacturing That Works: Powerful Tools for Dramatically Reducing Waste and Maximizing Profits*. McGraw-Hill Professional.
5. Dennis, P., 2002. *Lean Production Simplified: A Plain-Language Guide to the World's Most Powerful Production System*. Productivity Press.
6. Gross, J. & McInnis, K., 2008. *Kanban Made Simple*. Amacom.
7. Hay, E., 1988. *Just-In-Time Breakthrough: Implementing*

0201343: CONSUMER BEHAVIOUR

Full Marks: 100

Consumer Behaviour-Nature, Scope and Applications

Marks: 12

Introduction; Nature: The Consumer, The Decision Process; Scope; Decision Process; Individual Determinants; External Environment; Applications of Consumer Behaviour in Marketing: Analysing Market Opportunity, Selecting the Target Market, Determining the Product Mix, Use in Non-Profit and Social Marketing

Consumer Behaviour and Lifestyle Marketing

Marks: 12

Introduction; Demographics, Psychographics and Lifestyle; Characteristics of Lifestyle; Influences on Lifestyle; Approaches to Study Lifestyle: AIO inventories; Application of AIO Studies; Lifestyle Profiles in Indian Context; VALS System of Classification: VALS-2 Classification, Applications of VALS classification; Applications of Lifestyle Marketing

Organisational Buying Behaviour

Marks: 11

Introduction; What is Organisational Buying Behaviour?; Organisational Buying Behaviour-Some Typical Characteristics; Who are the Organisational Customers?; What Influences Organisational Buying?; The Organisational Buying Situations; Organisational Buying Behaviour: Some Models; The Selection of a Supplier

Purchase Process and Post-Purchase Behaviour

Marks: 14

Introduction; An Overview-of Purchase Process; Buying Stage and Situational Influences: Physical Surroundings, Social Surroundings, Task Definition, Temporal Factors, Antecedent States; Steps to Benefit from Situational Influences; An Anatomy of Non-Store Buying; Routes of Non-Store Buying; Developing an Attitude to Post-Purchase Behaviour; Theories of Post-Purchase Evaluation; Marketers' Response Strategies: Monitor Regularly the Consumer Reactions, Bring Product Quality under Marketing Responsibility, Handle Complaints Quickly and Responsibly, Be a Courteous and Helpful Host, State Only Realistic Product Claims, Help Consumer on Product Use, Sell 'Solution' instead of Product, Assure Even after the Purchase is Over

Consumer and Decision Making

Marks: 15

Introduction; Decision Defined; Levels of Consumer Decision Making: Extensive Problem Solving, Limited Problem Solving, Routinized Response Behaviour; Models of Consumers' Decision Making: Economic View, Passive View, Cognitive View, Emotional View; Stages of Consumer Decision Making: Input, Process, Output; Consumer Information Processing; Information Processing Defined; Stages of Information Processing: Exposure, Attention, Personal Determinants of Attention, Stimulus Determinants of Attention, Comprehension, Acceptance, Retention; Types of Information Sought; Sources of Information; Determinants of Benefits and Cost of Information Search: Market Characteristics, Product Characteristics, Consumer Characteristics, Situation Characteristics; Marketing Strategies Based on Information Search Patterns

Family Buying Influences, Family Life Cycle and Buying Roles

Marks: 13

Introduction: The Family as a Consuming Unit; Family Buying Influences: Nature and Types of Influences; Consumer Socialisation; Intergenerational Influences; Family Decision-Making; Family Role Structure and Buying Behaviour; The Dynamics of Family' Decision-Making: Purchase Influences and Role Specialisation; The Influence of Children; The Family Life Cycle Concept; Implications of Family Decision-Making for Marketing Strategy

Market Research and Consumer Behaviour

Marks: 13

Introduction; Relevance of Market Research with Consumer Behaviour; Approaches to Consumer Behaviour Research: Traditional Approach, Current Approach: 'Dialectical'; Research Perspectives on Consumer Behaviour; Research Paradigms in Consumer Behaviour: Quantitative Research in Consumer Behaviour, Qualitative Research in Consumer Behaviour

Consumer Behaviour Theory: Approaches and Models

Marks: 10

Consumer Behaviour and Consumer Decision Making; Theoretical Approaches to the Study of Consumer Behaviour: Economic Man, Psychodynamic Approach, Behaviourist Approach, Cognitive Approach; Cognitive Models of Consumer Behaviour

Reference Books:

1. Hoyer, W. D. and MacInnis, D. J., 2008. *Consumer Behaviour*. Cengage Learning, Canada
2. Karen, W., *Consumer Behaviour*. Tata McGraw-Hill Education Pvt Ltd., New Delhi.
3. Khan, M., 2007. *Consumer Behaviour*. New Age International.
4. Kotler, P., 1994. *Marketing Management Planning, Implementation and Control*, 6th ed., Prentice Hall of India, New Delhi.
5. Mower, J. C., 1987. *Consumer Behaviour*. MacMillan Publishing Co.
6. Ames, C. B. and Hlavaack, J. D., 1984. *Managerial Marketing for Industrial Firms*. Random House Business Division, New York.
7. Batra, S. K. and Kazmi, S. H., 2009. *Consumer Behaviour*, 2nd ed., Excel Books, New Delhi.