



**KALINGA
UNIVERSITY**

SCHEME & SYLLABUS FOR

Bachelor of Vocational Studies (B.Voc.)

Inventory Control

(W.e.f. 2025 – 2026)



Kalinga University, Naya Raipur, Chhattisgarh

B.VOC SYLLABUS FOR INVENTORY CONTROL

Semester-01								
Course Code	Course Title	Credits	L	T	P	Internal Marks	End Semester Exam Marks	Total Marks
BVIC101	Communication Skills	3	3	0	0	30	70	100
BVIC102	Fundamentals of Information Technology	3	3	0	0	30	70	100
BVIC103	Materials Management: An Overview	3	3	0	0	30	70	100
BVIC104	Stores Keeping and Stores Accounting	3	3	0	0	30	70	100
BVIC105P	On Job Training/ Internship/Workshop	18	0	0	36	50	150	200
Total		30	12	0	36	170	430	600

Semester-02								
Course Code	Course Title	Credits	L	T	P	Internal Marks	End Semester Exam Marks	Total Marks
BVIC201	Managerial Economics	3	3	0	0	30	70	100
BVIC202	Environmental Studies	3	3	0	0	30	70	100
BVIC203	Introduction to Logistics Management	3	3	0	0	30	70	100
BVIC204	Basic Tally 9.2	3	3	0	0	30	70	100
BVIC205P	On Job Training/ Internship/Workshop	18	0	0	36	50	150	200
Total		30	12	0	36	170	430	600

Semester-03								
Course Code	Course Title	Credits	L	T	P	Internal Marks	End Semester Exam Marks	Total Marks
BVIC301	Inventory Management	3	3	0	0	30	70	100
BVIC302	Principles of Logistics Information Systems	3	3	0	0	30	70	100
BVIC303	Materials Planning and Control	3	3	0	0	30	70	100
BVIC304	Shipping and Ocean Freight Logistics Management	3	3	0	0	30	70	100
BVIC305P	On Job Training/ Internship/Workshop	18	0	0	36	50	150	200
Total		30	12	0	36	170	430	600

Semester-04								
Course Code	Course Title	Credits	L	T	P	Internal Marks	End Semester Exam Marks	Total Marks
BVIC401	Inventory System and Control Techniques	3	3	0	0	30	70	100
BVIC402	Transportation and Distribution Management	3	3	0	0	30	70	100
BVIC403	Warehouse Management	3	3	0	0	30	70	100
BVIC404	Productivity Management	3	3	0	0	30	70	100
BVIC405P	On Job Training/ Internship/Workshop	18	0	0	36	50	150	200
Total		30	12	0	36	170	430	600

Semester-05								
Course Code	Course Title	Credits	L	T	P	Internal Marks	End Semester Exam Marks	Total Marks
BVIC501	Export and Import - Policies & Procedures	3	3	0	0	30	70	100
BVIC502	Production and Materials Management	3	3	0	0	30	70	100
BVIC503	Domestic Logistics Management	3	3	0	0	30	70	100
BVIC504	Air Cargo Logistics Management	3	3	0	0	30	70	100
BVIC505P	On Job Training/ Internship/Workshop	18	0	0	36	50	150	200
Total		30	12	0	36	170	430	600

Semester-06								
Course Code	Course Title	Credits	L	T	P	Internal Marks	End Semester Exam Marks	Total Marks
BVIC601	Supply Chain Management	3	3	0	0	30	70	100
BVIC602	International Logistics Management	3	3	0	0	30	70	100
BVIC603	Quality Management	3	3	0	0	30	70	100
BVIC604	Entrepreneurship Development	3	3	0	0	30	70	100
BVIC605P	On Job Training/ Internship/Workshop	18	0	0	36	50	150	200
Total		30	12	0	36	170	430	600

SEMESTER-01

COMMUNICATION SKILLS

BVIC101

Course Outcomes:

After successful completion of this course, learners will be able to:

- Explain the fundamentals of communication, including its types, modes, channels, barriers, and the role of English as a global language in personal, academic, and professional contexts.
- Demonstrate effective verbal and non-verbal communication skills by applying appropriate strategies for interpersonal, group, social, and business communication while recognizing language variations, accents, and dialects.
- Develop effective speaking skills by participating confidently in interviews, group discussions, public speaking, dialogues, and other professional communication situations.
- Analyze and interpret written texts through effective reading, comprehension, translation, and critical evaluation of content, audience, purpose, tone, and stylistic features.
- Produce clear, coherent, and professional written communication by preparing reports, letters, notes, essays, articles, newsletters, diary entries, and other forms of written documents for academic and workplace applications.

Unit 1:

06

Introduction:

- Theory of communication, types and modes of communication, mediums and channels of communication, barriers to communication, English as a global language, the lingua franca, social influences on English

Unit 2:

06

Language of Communication:

- Verbal and non-verbal (spoken and written) personal, social and business barriers and strategies intra-personal, inter-personal and group communication, varieties of English, language, accent, dialect, colloquialism, historical influences on English

Unit 3:

06

Speaking Skills:

- Monologue dialogue group discussion effective communication/ mis-communication interview public speech, regional influences on English, convergence and divergence, linguistic imperialism

Unit 4:

06

Reading and Understanding:

- Close reading, reading analysis of a text - audience and purpose, content and theme, tone and mood, stylistic devices, structure comprehension- analysis and interpretation translation (from Indian language to English and vice-versa) literary/knowledge texts

Unit 5:

Writing Skills:

- Documenting report writing making notes letter writing, writing tabloids, diary entry, open letters, essays, newsletter and magazine articles, skits, short stories, impersonating characters it will enhance language of communication, various speaking skills such as personal communication, social interactions and communication in professional situations such as interviews, group discussions and office environments, important reading skills as well as writing skills such as report writing, note taking etc. while, to an extent, the art of communication is natural to all living beings, in today's world of complexities, it has also acquired some elements of science. it is hoped that after studying this course, students will find a difference in their personal and professional interactions.

References:

- K. K. Sinha – Business Communication, Galgotia Publishing Company, New Delhi.
- Raman Sharma – Technical Communication: Principles and Practice, Oxford University Press India.
- Sanjay Kumar & Pushp Lata – Communication Skills, Oxford University Press India.
- Meenakshi Raman & Sangeeta Sharma – Technical Communication: Principles and Practice, Oxford University Press India.
- Krishna Mohan & Meera Banerji – Developing Communication Skills, Macmillan Education India.

FUNDAMENTALS OF INFORMATION TECHNOLOGY

BVIC102

Course Outcomes:

After successful completion of this course, learners will be able to:

- Explain the fundamentals of computer systems, including their characteristics, classification, historical development, hardware, software, and the von Neumann architecture.
- Identify and describe the functions of computer hardware components, memory devices, storage media, input/output devices, and peripheral equipment used in modern computing systems.
- Demonstrate an understanding of system software, application software, operating systems, programming languages, databases, utilities, and computer security concepts, including virus protection and open-source software.
- Explain the concepts of computer networks and the Internet, including networking components, Internet services, web technologies, e-mail communication, and methods of Internet connectivity.
- Apply the principles of information technology and basic programming concepts by explaining IT applications in various sectors, interpreting algorithms, pseudocode and flowcharts, and describing the stages of program development, testing, debugging, and documentation.

Unit 1:

06

Computer characteristics:

- Speed, storage, accuracy, diligence; digital signals, binary system, ASCII; historic evolution of computers;
- **Classification of computers:** microcomputer, minicomputer, mainframes, supercomputers;
- **Personal computers:** desktop, laptops, palmtop, tablet; hardware & software; von Neumann model.

Unit 2:

06

Hardware:

- CPU, memory, input devices, output devices.
- **Memory units:** RAM (SDRAM, DDR RAM, RDRAM etc. feature wise comparison only); ROM-different types: Flash memory;
- **Auxiliary storage:** Magnetic devices, optical devices; floppy, hard disk, memory stick, CD, DVD, CD/DVD-Writer;
- **Input devices:** keyboard, mouse, scanner, speech input devices, digital camera, touch screen voice input, joystick, optical readers, bar code reader;
- **Output devices:** Display device, size and resolution; CRT, LCD, LED;
- **Printers:** Dot-matrix, inkjet, laser; plotters, sound cards & speaker.

Unit 3:

06

Software:

- System software, application software; concepts of files and folders, introduction to operating systems, different types of operating systems: single user, multitasking, time-sharing multi-user; booting, POST;
- **Basic features of two GUI operating systems:** Windows & Linux (Basic desk top management); Programming Languages, Compiler, Interpreter, Databases;
- **Application software:** Generic features of word processors, spread sheets and presentation software; generic introduction to latex for scientific typesetting; utilities and their use; computer viruses & protection, free software, open source.

Unit 4:

06

Computer Networks and Internet:

- Connecting computers, requirements for a network: server, workstation, switch, router, network operating systems; internet: brief history, world wide web, websites, URL, browsers, search engines, search tips; internet connections: isp, dial-up, cable modem, well, dsl, leased line wireless and Wi-Fi connectivity ; email, email software features (send receive, filter, attach, forward, copy, blind copy); characteristics of web-based systems, web pages, web programming languages.

Unit 5:

06

Information Technology and Society:

- Indian IT Act, intellectual property rights, issues. application of information technology in railways, airlines, banking, insurance, inventory control, financial systems, hotel management, education, video games, telephone exchanges, mobile phones, information kiosks, special effects in movies.
- **Programming Concepts & Techniques:** Program concept, characteristics of programme, stages in program development, tips for program designing, programming aids, algorithms, pseudo code, notations, design, flowcharts, symbols, rules, compiler & interpreter. introduction to programming techniques, top-down & bottom-up approach, unstructured, & modular programming, cohesion, coupling, debugging, syntax & logical errors, linking and loading, testing and debugging, documentation.

References:

- V. Rajaraman – Fundamentals of Computers, PHI Learning Pvt. Ltd., New Delhi.
- Reema Thareja – Computer Fundamentals and Programming in C, Oxford University Press India.
- E. Balagurusamy – Fundamentals of Computers, McGraw Hill Education (India) Pvt. Ltd., New Delhi.
- Ramesh Bangia – Computer Fundamentals and Information Technology, Firewall Media (Laxmi Publications), New Delhi.
- Alexis Leon & Mathews Leon – Fundamentals of Information Technology, Vikas Publishing House Pvt. Ltd., New Delhi.

MATERIALS MANAGEMENT: AN OVERVIEW

BVIC103

Course Outcomes:

After successful completion of this course, learners will be able to:

- Explain the concepts, objectives, scope, functions, organization, and significance of materials management, and analyze its internal and external interfaces within an organization.
- Describe the principles of supply chain management, including the flow of materials, production, and distribution systems, and evaluate their role in achieving organizational efficiency.
- Analyze the linkages between materials management and other functional areas such as production, accounting and finance, marketing, human resource management, information technology, and total quality management.
- Identify the major production processes, commonly used machines, and industrial tools, and explain their role in manufacturing and materials management operations.
- Classify and analyze the various costs associated with materials management and apply cost concepts to support effective material planning, procurement, and inventory control.

Unit 1: 06

- **Introduction to Materials Management:** Meaning, definition, scope and functions of Materials Management, Objectives and Advantages of Materials Management.
- **Interfaces of Materials Management:** Internal and external interfaces. Organisation for Material Management

Unit 2: 06

Supply Chain Management:

- Concept, objectives of supply – production and distribution system, Role and Management of flow of material in supply chain management.

Unit 3: 06

Material Management Linkages:

- Linkages with other functional areas of Management i.e. Production, Accounting and Finance, Marketing, HRM, IT, TQM. A Brief discussion on the functions of each functional area of Management.

Unit 4: 06

Elements of Production Processes:

- Familiarity with broad categories of production processes used in industries. Commonly used machines and tools in industries.

Unit 5: 06

Cost Involved in material management:

- General discussion on concept of costs and cost classification, specific costs associated with Material Management.

References:

- Dutta A.K., Materials Management: Procedures, Text and cases, Prentice Hall of India Pvt. Ltd., New Delhi.
- Gopalakrishnan, P. and Sundareson, M., Materials Management: An Integrated Approach, Prentice Hall of India Pvt. Ltd., New Delhi.
- Varma, M.M., Essentials of Storekeeping and Purchasing, Sultan Chand and Sons, New Delhi.
- Shah N.M. An Integrated concept of Materials Management, Indian Institute of Materials Management, Baroda Branch, Baroda.
- Sharma S.C., Material Management and Materials Handling, Khanna Publishers, New Delhi.

STORES KEEPING AND STORES ACCOUNTING

BVIC104

Course Outcomes:

After successful completion of this course, learners will be able to:

- Explain the concepts, objectives, functions, types, location, and layout of storekeeping, and describe its importance in effective materials management.
- Demonstrate the procedures for receiving, inspecting, testing, rejecting, and returning materials, prepare the relevant store documents, and apply suitable methods of material codification.
- Maintain store records and issue materials efficiently by using appropriate issue procedures, documentation, and inventory pricing methods such as FIFO, LIFO, Simple Average, Weighted Average, Standard Price, and Replacement Price.
- Analyze different types of material losses, including waste, scrap, spoilage, defectives, and obsolescence, and apply appropriate accounting treatment and control measures to minimize such losses.
- Identify and evaluate manual and mechanical store handling equipment and assess their role in improving the efficiency, safety, and productivity of stores operations.

Unit 1:

06

Introduction to Storekeeping:

- Introduction to storekeeping, objectives and functions of storekeeping, location and layout of stores, and types of stores.

Unit 2:

06

Receipt and Codification of Materials:

- Receipt procedure, inspection and testing of materials, rejection and return of materials, documents used in receiving materials such as Material Received Note (MRN), Inspection Report and Rejection Report, passing of bills/invoices for payment, need for codification of materials, methods of material codification, and suitability criteria for codification.

Unit 3:

06

Issue and Pricing of Materials:

- Issue procedure, documents used for material issue, store records including bin card and stores ledger, pricing of material issues using FIFO, LIFO, simple average, weighted average, standard price, and replacement/market price methods.

Unit 4:

06

Material Losses:

- Meaning, accounting treatment, and control of different types of material losses including waste, scrap, spoilage, defectives, and obsolescence.

Unit 5:

06

Store Handling Equipment:

- Advantages of using store handling equipment, types of store handling equipment, and manual and mechanical handling devices.

References:

- Dutta A.K., Materials Management: Procedures, Text and cases, Prentice Hall of India Pvt. Ltd., New Delhi.
- Singh, Surender Cost Accounting Scholar Tech Press New Delhi
- Gopalakrishnan, P. and Sundareson, M., Materials Management: An Integrated Approach, Prentice Hall of India Pvt. Ltd., New Delhi.
- Varma, M.M., Essentials of Storekeeping and Purchasing, Sultan Chand and Sons, New Delhi.
- Shah N.M. An Integrated concept of Materials Management, Indian Institute of Materials Management, Baroda Branch, Baroda.

ON JOB TRAINING/INTERNSHIP/WORKSHOP

BVIC105P

SEMESTER-02

MANAGERIAL ECONOMICS

BVIC201

Course Outcomes:

After successful completion of this course, learners will be able to:

- Explain the concepts, nature, scope, and significance of managerial economics, and evaluate its relationship with other disciplines and its role in managerial decision-making and business planning.
- Analyze the concepts of demand and supply by applying demand functions, elasticity of demand and supply, and demand forecasting techniques to support business decisions.
- Evaluate consumer behaviour using utility and indifference curve theories, and analyze the characteristics and pricing behaviour of different market structures, including perfect competition, monopoly, monopolistic competition, and oligopoly.
- Apply various pricing policies and methods by considering cost, demand, competition, and organizational objectives to determine appropriate pricing strategies for business enterprises.
- Explain the scope and importance of macroeconomics and analyze major issues affecting the Indian economy, including economic growth, unemployment, poverty, income inequality, inflation, and deflation.

Unit 1:

06

Managerial Economics:

- Definition and characteristics – Nature and Scope - Economics Vs Managerial Economics - Decision making and forward planning – Relations hip of managerial economics with other disciplines-Role of managerial economist

Unit 2:

06

Basic concepts of Demand and Supply:

- Demand function, Demand curve, Elasticity of Demand, Demand forecasting – Determinants of price elasticity of demand-elasticity of supply-Determinants of price elasticity of supply

Unit 3:

06

Theory of consumer behaviour and market structure:

- Utility- Cardinal Utility analysis - Law of diminishing marginal utility – consumer surplus; Ordinal Utility approach – indifference curve analysis – consumer equilibrium

Market structure:

- Definition and Characteristics-Types of market structure-Perfect competition-features-necessary conditions Monopoly-characteristics-Monopolistic competition-Oligopoly-characteristics

Unit 4:

06

Pricing policies and practices:

- factors governing prices-objectives of pricing policy-Role of cost in pricing-demand factor in pricing-pricing methods-cost plus or full cost pricing-Target pricing-marginal cost pricing-going rate pricing follow up pricing-Barometric pricing-customary prices-pricing of new products penetrating pricing-price skimming

Unit 5:

06

Macroeconomics:

- Scope and importance-major concerns of macroeconomics- Indian economy – Basic characteristics of Indian economy – Issues in Indian economy: Problems of growth, unemployment, poverty, inequality in income distribution, Inflation-Deflation

References:

- D. N. Dwivedi – Managerial Economics, Vikas Publishing House Pvt. Ltd., New Delhi.
- Dominick Salvatore (Indian Edition) – Managerial Economics: Principles and Worldwide Applications, Oxford University Press India.
- S. Sankaran – Managerial Economics, Margham Publications, Chennai.
- H. L. Ahuja – Managerial Economics: Analysis of Managerial Decision Making, S. Chand Publishing, New Delhi.
- P. L. Mehta – Managerial Economics: Analysis, Problems and Cases, Sultan Chand & Sons, New Delhi.

ENVIRONMENTAL STUDIES

BVIC202

Course Outcomes:

After successful completion of this course, learners will be able to:

- Master core concepts and methods from ecological and physical sciences and their application in environmental problem solving.
- Appreciate the ethical, cross-cultural, and historical context of environmental issues and the links between human and natural systems.
- Apply systems concepts and methodologies to analyze and understand interactions between social and environmental processes.
- Reflect critically about their roles and identities as citizens, consumers and environmental actors in a complex, interconnected world.
- Master core concepts and methods from economic, political, and social analysis as they pertain to the design and evaluation of environmental policies and institutions.

Unit 1:

06

Introduction to Environmental Studies:

- Multidisciplinary nature of environmental studies, Scope and importance; concept of sustainability and sustainable development.

Ecosystems:

- What is an ecosystem? Structure and function of the ecosystem;
- **Energy flow in an ecosystem:** food chains, food webs and ecological succession.
- **Case studies of the following ecosystems:** Forest ecosystem, grassland ecosystem, desert ecosystem, aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries)

Unit-2:

06

Natural Resources:

- **Renewable and Non-renewable Resources:** Land resources and land use change; Land degradation, soil erosion and desertification.
- **Deforestation:** Causes and impacts due to mining, dam building on environment, forests, biodiversity and tribal populations.
- **Water:** Use and over-exploitation of surface and ground water, floods, droughts, conflicts over water (international & inter-state).
- **Energy resources:** Renewable and non-renewable energy sources, use of alternate energy sources, growing energy needs, case studies.

Unit-3:

06

Biodiversity and Conservation:

- **Levels of biological diversity:** genetic, species and ecosystem diversity; Biogeographic zones of India; Biodiversity patterns and global biodiversity hot spots, India as a mega-biodiversity nation; Endangered and endemic species of India
- **Threats to biodiversity:** Habitat loss, poaching of wildlife, man-wildlife conflicts, biological invasions;
- **Conservation of biodiversity:** In-situ and Ex-situ conservation of biodiversity.
- **Ecosystem and biodiversity services:** Ecological, economic, social, ethical, aesthetic and Informational value.

Unit-4:**Environmental Pollution:**

- Types, causes, effects and controls; Air, water, soil and noise pollution, Nuclear hazards and human health risks
- **Solid waste management:** Control measures of urban and industrial waste. Pollution case studies.

Environmental Policies & Practices:

- Climate change, global warming, ozone layer depletion, acid rain and impacts on human communities and agriculture
- **Environment Laws:** Environment Protection Act; Air (Prevention & Control of Pollution) Act; Water (Prevention and control of Pollution) Act; Wildlife Protection Act; Forest Conservation Act. International agreements: Montreal and Kyoto protocols and Convention on Biological Diversity (CBD).
- Nature reserves, tribal populations and rights, and human wildlife conflicts in Indian context.

Unit-5:**Human Communities and the Environment:**

- **Human population growth:** Impacts on environment, human health and welfare. Resettlement and rehabilitation of project affected persons; case studies.
- **Disaster management:** floods, earthquake, cyclones and landslides.
- **Environmental movements:** Chipko, Silent valley, Bishnois of Rajasthan.
- **Environmental ethics:** Role of Indian and other religions and cultures in environmental conservation. Environmental communication and public awareness, case studies (e.g., CNG vehicles in Delhi).

References:

- Gadgil, M., & Guha, R. 1993. This Fissured Land: An Ecological History of India. Univ. of California Press.
- Grumbine, R. Edward, and Pandit, M.K. 2013. Threats from India's Himalaya dams. Science, 339: 36--37.
- Rao, M.N. & Datta, A.K. 1987. Waste Water Treatment. Oxford and IBH Publishing Co. Pvt. Ltd.
- Raven, P.H., Hassenzahl, D.M. & Berg, L.R. 2012. Environment. 8th edition. John Wiley & Sons.
- Rosencranz, A., Divan, S., & Noble, M. L. 2001. Environmental law and policy in India. Tripathi 1992.

INTRODUCTION TO LOGISTICS MANAGEMENT

BVIC203

Course Outcomes:

After successful completion of this course, learners will be able to:

- Explain the concepts, evolution, objectives, elements, activities, and importance of logistics, and analyze its role in marketing and retail logistics.
- Describe the principles of logistics management, including its processes, activities, models, and integrated logistics management, and evaluate its contribution to achieving competitive advantage.
- Analyze logistics strategies by evaluating the strategic role of logistics, the responsibilities of logistics managers, and the application of lean, agile, and other logistics strategies in business organizations.
- Evaluate the role of logistics outsourcing by examining third-party logistics (3PL), fourth-party logistics (4PL), their stages, functions, and contribution to supply chain efficiency.
- Apply the concepts of customer service and integrated logistics by analysing order cycle systems, distribution channels, channel design, and logistics activities to enhance customer satisfaction and organizational performance.

Unit 1: 06

Introduction to Logistics:

- Definition, history and evolution of logistics, objectives, elements, activities, importance of logistics, work of logistics, logistics interface with marketing, and retail logistics.

Unit 2: 06

Logistics Management:

- Definition, evolution of the concept, logistics management model, process and activities, achievement of competitive advantage through logistics, logistics framework, role of logistics management, and integrated logistics management.

Unit 3: 06

Logistics Strategy:

- Strategic role of logistics, logistics strategy, role of logistics managers in strategic decision-making, strategy options, lean strategy, agile strategy, other logistics strategies, designing and implementing logistics strategy, and emerging concepts in logistics.

Unit 4: 06

Outsourcing Logistics:

- Reasons for outsourcing logistics, third-party logistics (3PL), fourth-party logistics (4PL), stages of logistics outsourcing, and the role of logistics service providers.

Unit 5:

06

Quality Customer Service and Integrated Logistics:

- Customer service, importance and elements of customer service, order cycle system, distribution channels, functions of distribution channels, types of distribution channels, and channel design.

References:

- David J. Bloomberg, Stephen LeMay & : Logistics, Prentice-Hall of India Pvt Joe B. Hanna Ltd., New Delhi, 2003.
- Donald J. Bowersox & David J. Closs : Logistical Management, Tata McGraw Hill Publishing Co. Ltd, New Delhi, 2004
- Satish C. Ailawadi & Rakesh Singh : Logistics Management, Prentice-Hall of India Pvt Ltd., New Delhi, 2005
- Donald Waters : Logistics. Palgrave Macmillan, New York, 2004
- Krishnaveni Muthiah : Logistics Management & World Sea borne Trade, Himalaya Publishing House, Mumbai, 1999

BASIC TALLY 9.2

BVIC204

Course Outcomes:

After successful completion of this course, learners will be able to:

- Explain the fundamental concepts and principles of accounting, record business transactions using journal entries, apply accounting rules, and prepare final accounts.
- Create and manage company accounts in Tally 9.2 by creating companies, groups, ledgers, recording accounting vouchers, and generating accounting reports.
- Manage inventory in Tally 9.2 by creating stock groups, stock categories, units of measurement, godowns, and stock items, recording inventory transactions, and generating inventory reports.
- Apply payroll and GST features in Tally 9.2 by creating employee records, processing payroll, maintaining attendance, recording GST transactions, and generating basic statutory reports.
- Generate, analyze, and maintain financial reports and company data in Tally 9.2, including Trial Balance, Profit & Loss Account, Balance Sheet, Cash Flow, Fund Flow, Ratio Analysis, Bank Reconciliation Statement (BRS), budgeting, backup, restore, and security management.

Unit 1:

06

Basics of Accounting:

- Introduction to accounting, objectives and importance of accounting, types of accounting, classification of income and expenditure, accounting concepts and principles, rules of debit and credit, types of vouchers, business transactions, journal entries, adjustments, and preparation of final accounts.

Unit 2:

06

Company Creation and Accounting in Tally 9.2:

- Introduction to Tally 9.2, features of Tally, screen components, creating and selecting a company, creating groups and ledgers, voucher entries for various business transactions, modifying and deleting vouchers, and display of accounting reports.

Unit 3:

06

Inventory Management in Tally 9.2:

- Need and importance of inventory management, inventory vouchers, creation of stock groups, stock categories, units of measurement, godowns, stock items, recording inventory transactions, inventory valuation, inventory statements, and accounting and inventory reports in Tally.

Unit 4:

06

Payroll and Taxation in Tally 9.2:

- Payroll basics, creation of employee groups and employee masters, salary details, payroll vouchers, attendance management, introduction to GST, GST ledgers, GST voucher entries, basic GST reports, and statutory features in Tally.

Unit 5:

06

Financial Reports, Utilities and Data Management in Tally 9.2:

- Generation and analysis of financial reports including Trial Balance, Profit & Loss Account, Balance Sheet, Cash Flow, Fund Flow, Ratio Analysis, Day Book and Account Books, Bank Reconciliation Statement (BRS), budgeting, printing reports, backup and restore of company data, security features, and data maintenance in Tally. (Practical training covering report generation and data management.)

References:

- Namrata Agrawal – Computerized Accounting with TallyPrime, Dreamtech Press, New Delhi.
- Kogent Learning Solutions Inc. – Tally ERP 9 In Simple Steps, Dreamtech Press.
- Tally Education Pvt. Ltd. – Official Guide to Tally.ERP 9, Tally Education Pvt. Ltd., Bengaluru.
- Dr. S. N. Maheshwari & Dr. S. K. Maheshwari – Financial Accounting, Vikas Publishing House Pvt. Ltd.
- T. S. Grewal – Introduction to Accountancy, Sultan Chand & Sons, New Delhi.

ON JOB TRAINING/INTERNSHIP/WORKSHOP

BVIC205P

SEMESTER-03

INVENTORY MANAGEMENT

BVIC301

Course Outcomes:

After successful completion of this course, learners will be able to:

- Explain the concepts, objectives, scope, types, costs, and organizational aspects of inventory management and inventory control, and evaluate their importance in organizational performance.
- Apply inventory control techniques such as Economic Order Quantity (EOQ), safety stock, inventory management systems, forecasting methods, material requirement planning (MRP), and inventory ratio analysis to improve inventory efficiency.
- Analyze manufacturing planning strategies by applying the concepts of MRP-II, Just-in-Time (JIT), work-in-process inventory management, outsourcing, and make-or-buy decisions based on organizational requirements and core competencies.
- Evaluate the purpose and management of different types of inventories, including raw materials, work-in-process, finished goods, and stock categories, to ensure effective inventory control.
- Assess the management of spare parts inventories by utilizing computer-based inventory management systems and evaluating the performance of the materials management function using appropriate criteria and performance measures.

Unit 1:

06

Introduction to Inventory Management:

- Inventory management, inventory control, importance and scope of inventory control, types of inventory, costs associated with inventory, and organizational setup for inventory management.

Unit 2:

06

Selective Inventory Control Techniques:

- Economic Order Quantity (EOQ), importance and uses of EOQ, safety stock, inventory management systems, forecasting techniques, material requirement planning (MRP), execution of material planning, ratio analysis on inventory, and profit margin analysis.

Unit 3:

06

Manufacturing Planning and Inventory Systems:

- Manufacturing Resource Planning (MRP-II), Just-in-Time (JIT), work-in-process inventories, make-or-buy decisions, concept of outsourcing, factors influencing make-or-buy decisions, and trends in make-or-buy decisions with reference to core competencies.

Unit 4:

06

Management of Goods and Inventory Stocks:

- Purpose of inventory, types of goods, finished goods inventory, general management of inventory, stocks, and types of stocks.

Unit 5:

06

Spare Parts Inventory and Performance Evaluation:

- Spare parts inventory, use of computers in inventory management, evaluation of the performance of the materials function, and criteria and methodology for performance evaluation.

References:

- L. C. Jhamb – Materials Management, Everest Publishing House, Pune.
- K. Datta – Materials Management: Procedures, Text and Cases, Prentice Hall of India (PHI), New Delhi.
- P. Gopalakrishnan & M. Sundaresan – Materials Management: An Integrated Approach, PHI Learning Pvt. Ltd., New Delhi.
- S. N. Chary – Production and Operations Management, McGraw Hill Education (India) Pvt. Ltd., New Delhi.
- K. Aswathappa & K. Shridhara Bhat – Production and Operations Management, Himalaya Publishing House, Mumbai.

PRINCIPLES OF LOGISTICS INFORMATION SYSTEMS BVIC302

Course Outcomes:

After successful completion of this course, learners will be able to:

- Explain the role of information technology in logistics by describing technologies such as Electronic Data Interchange (EDI), barcoding, scanning, personal computers, artificial intelligence, expert systems, and communication systems used in logistics operations.
- Analyze the application of information technology in supply chain management by evaluating the bullwhip effect, Enterprise Resource Planning (ERP), Business Process Reengineering (BPR), EDI, and the impact of the Internet on supply chain performance.
- Explain the concepts, functions, and components of Logistics Information Systems (LIS), and apply the principles for designing and evaluating logistics information system applications.
- Analyze the architecture of Logistics Information Systems by examining planning, coordination, operating flows, and the integration of logistics information for effective decision-making.
- Apply forecasting techniques and e-commerce concepts to support logistics planning by evaluating forecasting processes, forecasting errors, and the role of information systems in improving logistics and supply chain performance.

Unit 1:

06

Information Technology and Logistics:

- Information technology in logistics, Electronic Data Interchange (EDI), personal computers, artificial intelligence and expert systems, communication systems, barcoding and scanning, EDI standards, information systems, communication technologies, and future directions in logistics.

Unit 2:

06

Information Technology for Supply Chain Management:

- Supply chain management, bullwhip effect, role of information technology in supply chain management, business process reengineering (BPR), enterprise resource planning (ERP), Electronic Data Interchange (EDI), problems associated with EDI, and impact of the Internet on supply chain management.

Unit 3:

06

Logistics Information Systems (LIS):

- Meaning and need for logistics information systems, forms of logistics information systems, definition and functionality of LIS, activities involved in transaction systems, and principles for designing and evaluating LIS applications.

Unit 4:

06

Logistics Information System Architecture:

- Architecture of logistics information systems, components of LIS, planning and coordination flows, operating flows, flow of logistics information, and use of integrated logistics information systems.

Unit 5:

06

Information Forecasting and E-Commerce:

- Information forecasting, definition, forecasting process, components and characteristics of forecasting, forecasting approaches, forecasting techniques, forecasting errors, and applications of e-commerce in logistics.

References:

- Sunil Chopra & Peter Meindl (Indian Edition) – Supply Chain Management: Strategy, Planning and Operation, Pearson Education India, New Delhi.
- Janat Shah – Supply Chain Management: Text and Cases, Pearson Education India, New Delhi.
- P. Gopalakrishnan – Purchasing and Materials Management, McGraw Hill Education (India) Pvt. Ltd., New Delhi.
- S. N. Chary – Production and Operations Management, McGraw Hill Education (India) Pvt. Ltd., New Delhi.
- R. Panneerselvam – Production and Operations Management, PHI Learning Pvt. Ltd., New Delhi.

MATERIALS PLANNING AND CONTROL

BVIC303

Course Outcomes:

After successful completion of this course, learners will be able to:

- Explain the concepts and techniques of budgetary control, prepare various functional budgets, and apply fixed and flexible budgeting for effective materials planning and control.
- Apply the principles of standard costing by computing and analyzing material cost variances to evaluate operational performance and control material costs.
- Apply the concepts of marginal costing and cost-volume-profit (CVP) analysis to support managerial decision-making, including break-even analysis, make-or-buy decisions, and domestic versus international purchasing decisions.
- Evaluate the application of computer-based information systems in materials management by utilizing information technology for material planning, purchasing, stores management, issue of materials, and inventory control.
- Assess the effectiveness of the materials management function by applying appropriate evaluation procedures, tools, and performance measurement techniques for continuous improvement.

Unit 1: 06

Budgetary Control:

- Meaning of budget, types of budgets, budgetary control system, material requirement planning (MRP), principal budget factor, budget manual, preparation of sales budget, production budget, material consumption budget, purchase budget, and fixed and flexible budgets.

Unit 2: 06

Standard Costing:

- Meaning of standard cost, standard costing system, standard costing techniques, and material cost variance analysis.

Unit 3: 06

Marginal Costing and Decision Making:

- Concept of marginal costing, marginal cost, fixed and variable costs, period and product costs, marginal costing system, marginal cost equation, profit-volume (P/V) ratio, break-even point, break-even chart, margin of safety, cost-volume-profit (CVP) analysis and its uses, relevant costs in decision making, make-or-buy decisions, and domestic versus international purchasing decisions.

Unit 4: 06

Computer Applications in Material Management:

- Use of computers in material planning, purchasing, stores management, issue of materials, inventory control, and integrated information systems for material management.

Unit 5:

06

Evaluation of Material Management Function:

- Meaning and procedure for evaluating the material management function, evaluation tools and techniques, and performance measurement of material management activities.

References:

- M. N. Arora – Cost Accounting: Principles and Practice, Vikas Publishing House Pvt. Ltd., New Delhi.
- S. N. Maheshwari & S. N. Mittal – Cost Accounting: Theory and Problems, Shri Mahavir Book Depot (Publishers), New Delhi.
- Jain, S. P. & Narang, K. L. – Cost Accounting: Principles and Practice, Kalyani Publishers, Ludhiana.
- P. Gopalakrishnan – Purchasing and Materials Management, McGraw Hill Education (India) Pvt. Ltd., New Delhi.
- P. Gopalakrishnan & M. Sundaresan – Materials Management: An Integrated Approach, PHI Learning Pvt. Ltd., New Delhi.

SHIPPING AND OCEAN FREIGHT LOGISTICS MANAGEMENT BVIC304

Course Outcomes:

After successful completion of this course, learners will be able to:

- Explain the fundamentals of the shipping industry by describing ship classifications, ship structures, tonnage, load lines, flag registration, cargo types, and cargo handling practices.
- Analyze port operations and related services, including stevedoring, lighterage, pilotage, dock labour management, container handling, and port security for efficient maritime logistics.
- Evaluate shipping line operations by applying the concepts of hub-and-spoke networks, containerization, booking procedures, shipping documentation flow, customer service, and sales management.
- Apply shipment planning techniques by performing volume and weight calculations, selecting appropriate container services (FCL/LCL), planning container loading and de-stuffing, and optimizing cargo movement.
- Prepare and interpret shipping and multimodal transport documentation, including Bills of Lading, Sea Way Bills, Multimodal Transport Documents (MTD), invoicing, cargo release procedures, cross-trade documentation, and key account management.

Unit 1:

06

Shipping Industry and Business:

- Introduction to the shipping industry, description and uses of a ship, classification of ships based on route and cargo carried, superstructure, tonnage and cubic capacity, drafts and load lines, flag registration, different types of cargo based on packing, utility and value, trimming, cleansing, and unitized cargo.

Unit 2:

06

Port Operations and Security:

- Port trusts, operational units, port services, seaports, vessel operations, pilotage, stevedoring, dock labour boards, port charges, automated container handling, security at ports and harbours, role of security agencies, and lighterage services.

Unit 3:

06

Shipping Lines and Containerization:

- Shipping lines, hub and spoke system, shipping process flow, shipment advice, booking procedures, containerization, types of containers, container numbering, shipping sales, lead generation, quotations, and customer service.

Unit 4:

06

Shipment Planning and Container Operations:

- Volume and weight calculations, shipment planning, preparation and loading of containers, types of container services, Full Container Load (FCL), Less than Container Load (LCL), consolidation, advanced scientific shipment planning, and container de-stuffing.

Unit 5:

Shipping Documentation and Cargo Management:

- Bill of Lading, Master Bill of Lading (MBL), House Bill of Lading (HBL), Container Yard (CY), Container Freight Station (CFS), Sea Way Bill, combined transport, Multimodal Transport Operator (MTO), Multimodal Transport Document (MTD), invoicing, release of cargo, cross trade documentation, conditions of contract, key account management, trade lane development, and shipping consortium.

References:

- Sunil Chopra & Peter Meindl (Indian Edition) – Supply Chain Management: Strategy, Planning and Operation, Pearson Education India, New Delhi.
- Satish C. Ailawadi & Rakesh P. Singh – Logistics Management, PHI Learning Pvt. Ltd., New Delhi.
- D. K. Agrawal – Textbook of Logistics and Supply Chain Management, Macmillan Education India, New Delhi.
- C. B. Mamoria & S. V. Gankar – Dynamics of Industrial Relations, Himalaya Publishing House, Mumbai. (Useful for port labour, dock operations and logistics management.)
- The Institute of Chartered Shipbrokers (ICS) – Introduction to Shipping, Witherby Publishing Group.

ON JOB TRAINING/INTERNSHIP/WORKSHOP

BVIC305P

SEMESTER-04

INVENTORY SYSTEM AND CONTROL TECHNIQUES

BVIC401

Course Outcomes:

After successful completion of this course, learners will be able to:

- Explain the concepts, objectives, types, and importance of inventories, and interpret the provisions of the relevant accounting standards relating to inventory valuation and management.
- Apply periodic and perpetual inventory systems and evaluate inventories using various valuation methods, including FIFO, Weighted Average, and LIFO, with reference to different industrial applications.
- Analyze inventory decisions by applying Economic Order Quantity (EOQ) models, quantity discount analysis, reorder point determination, safety stock calculations, and inventory control systems such as Q-system and P-system.
- Evaluate selective inventory control techniques such as ABC Analysis, FSN Analysis, VED Analysis, Material Turnover Ratio, Just-in-Time (JIT), and work-in-process (WIP) inventory management to improve inventory efficiency.
- Apply appropriate inventory management techniques for controlling process inventories and spare parts inventories to optimize inventory costs and ensure uninterrupted production and operations.

Unit 1:

06

Introduction to Inventory Management:

- Meaning and types of inventories, definition of inventory as per the relevant accounting standard, need and benefits of holding inventories, and objectives of inventory management.

Unit 2:

06

Inventory Systems and Valuation:

- Periodic inventory system, perpetual inventory system, continuous stock taking, valuation of inventories as per the relevant accounting standard under different methods and systems, valuation using the LIFO method, and inventory valuation methods applicable to different industries.

Unit 3:

06

Inventory Decisions:

- Types of inventory decisions, relevant costs involved in inventory decisions, Economic Order Quantity (EOQ), calculation of EOQ using tabular, graphical and mathematical approaches, EOQ with quantity discount, reorder decisions, fixation of minimum, maximum and reorder levels, determination of safety stock, Q system, and P system.

Unit 4:

06

Inventory Control Techniques:

- Selective inventory control, ABC analysis, material turnover ratio, calculation and importance of material turnover ratio, FSN analysis, JIT (Just-in-Time) approach, and VED analysis.

Unit 5:

06

Management of Process Inventories and Spare Parts:

- Management of work-in-process (WIP) inventories, spare parts management, and inventory control practices for process industries.

References:

- M. N. Arora – Cost Accounting: Principles and Practice, Vikas Publishing House Pvt. Ltd., New Delhi.
- S. N. Maheshwari & S. N. Mittal – Cost Accounting: Theory and Problems, Shri Mahavir Book Depot (Publishers), New Delhi.
- R. Panneerselvam – Production and Operations Management, PHI Learning Pvt. Ltd., New Delhi.
- S. N. Chary – Production and Operations Management, McGraw Hill Education (India) Pvt. Ltd., New Delhi.
- The Institute of Chartered Accountants of India (ICAI) – Accounting Standards (AS 2 – Valuation of Inventories), ICAI, New Delhi.

TRANSPORTATION AND DISTRIBUTION MANAGEMENT

BVIC402

Course Outcomes:

After successful completion of this course, learners will be able to:

- Explain the role of distribution in supply chain management by analyzing distribution channels, transportation management, warehousing concepts, distribution costs, and various distribution network models.
- Apply distribution network planning principles by evaluating delivery lead time, transportation facilities, optimization techniques, material management processes, and the role of transportation agencies in supply chain operations.
- Analyze different transportation models, including multimodal transportation systems, by comparing their performance, costs, value measures, advantages, and suitability for logistics operations.
- Evaluate transportation administration and routing decisions by applying concepts of freight consolidation, cost negotiation, transportation operations management, e-commerce, information technology, and intelligent transport management systems.
- Assess the application of modern transportation technologies, including Geographic Information Systems (GIS), advanced fleet management systems, intermodal freight technologies, transport security initiatives, and inspection systems for improving transportation efficiency and security.

Unit 1:

06

Introduction to Distribution Management:

- Role of distribution in the supply chain, transportation management, warehousing concepts, designing distribution channels, distribution costs, advantages and disadvantages of distribution models, prerequisites of distribution, and comparison of distribution networks.

Unit 2:

06

Distribution Network Planning:

- Factors affecting distribution, delivery lead time, local facilities, optimization approaches and techniques, material management process, role of transportation, transportation principles, transportation participants, and contribution of various agencies in transportation.

Unit 3:

06

Transportation Models:

- Performance characteristics of transportation, selection of transportation modes, multimodal transportation models, merits of different transportation modes, transportation performance, cost and value measures, understanding transportation costs, and cost components of multimodal transportation.

Unit 4:

06

Transportation Operations and Routing Decisions:

- Transportation administration, transportation operations management, transportation routing decisions, freight consolidation, cost negotiation, recent trends in transportation, application of information technology in transportation, e-commerce, and intelligent transport management systems.

Unit 5:

06

Transit Operation Software and Transport Technology:

- Geographic Information Systems (GIS), advanced fleet management systems, intermodal freight technology, transport security initiatives, role of technology in transportation, and various transport inspection systems.

References:

- Satish C. Ailawadi & Rakesh P. Singh – Logistics Management, PHI Learning Pvt. Ltd., New Delhi.
- Sunil Chopra & Peter Meindl (Indian Edition) – Supply Chain Management: Strategy, Planning and Operation, Pearson Education India, New Delhi.
- Janat Shah – Supply Chain Management: Text and Cases, Pearson Education India, New Delhi.
- P. Gopalakrishnan – Purchasing and Materials Management, McGraw Hill Education (India) Pvt. Ltd., New Delhi.
- S. N. Chary – Production and Operations Management, McGraw Hill Education (India) Pvt. Ltd., New Delhi.

WAREHOUSE MANAGEMENT

BVIC403

Course Outcomes:

After successful completion of this course, learners will be able to:

- Explain the role of distribution in supply chain management by analyzing distribution channels, transportation management, warehousing concepts, distribution costs, and various distribution network models.
- Apply distribution network planning principles by evaluating delivery lead time, transportation facilities, optimization techniques, material management processes, and the role of transportation agencies in supply chain operations.
- Analyze different transportation models, including multimodal transportation systems, by comparing their performance, costs, value measures, advantages, and suitability for logistics operations.
- Evaluate transportation administration and routing decisions by applying concepts of freight consolidation, cost negotiation, transportation operations management, e-commerce, information technology, and intelligent transport management systems.
- Assess the application of modern transportation technologies, including Geographic Information Systems (GIS), advanced fleet management systems, intermodal freight technologies, transport security initiatives, and inspection systems for improving transportation efficiency and security.

Unit 1:

06

Introduction to Warehousing:

- Concepts of warehousing, warehousing decisions, warehouse operations, need for warehousing, issues affecting warehousing, warehousing facilities, types of warehouses, and characteristics of an ideal warehouse.

Unit 2:

06

Introduction to Inventory Management:

- Role of inventory in the supply chain, role of inventory in competitive strategy, functions of inventory, types of inventory, work-in-process (WIP) inventory, finished goods inventory, maintenance, repair and operating (MRO) inventory, cost of inventories, and need for holding inventory.

Unit 3:

06

Warehouse Management Systems:

- Introduction to Warehouse Management Systems (WMS), necessity of WMS, determining storage locations and sequences, independent demand systems, uncertainties in material management systems, dependent demand systems, and distribution resource planning (DRP).

Unit 4:

06

ABC Inventory Control:

- ABC inventory control, management of inventories using ABC analysis, multi-echelon inventory systems, inventory management in single-echelon and multi-echelon networks, distribution approaches, and the true multi-echelon approach.

Material Handling Systems and Performance Measures:

- Principles and performance measures of material handling systems, vehicle travel path and travel time, handling time, vehicle utilization, number of loads completed, congestion, effective performance systems, fundamentals of material handling systems, automated storage and retrieval systems (AS/RS), barcoding technology and applications, and RFID technology.

References:

- P. Gopalakrishnan & M. Sundaresan – Materials Management: An Integrated Approach, PHI Learning Pvt. Ltd., New Delhi.
- Satish C. Ailawadi & Rakesh P. Singh – Logistics Management, PHI Learning Pvt. Ltd., New Delhi.
- Sunil Chopra & Peter Meindl (Indian Edition) – Supply Chain Management: Strategy, Planning and Operation, Pearson Education India, New Delhi.
- Janat Shah – Supply Chain Management: Text and Cases, Pearson Education India, New Delhi.
- S. N. Chary – Production and Operations Management, McGraw Hill Education (India) Pvt. Ltd., New Delhi.

PRODUCTIVITY MANAGEMENT

BVIC404

Course Outcomes:

After successful completion of this course, learners will be able to:

- Explain the concepts of productivity, productivity cycles, macro and micro productivity factors, and apply the principles of value analysis and value engineering to enhance organizational productivity.
- Analyze and evaluate productivity using national, organizational, and total productivity models, and apply productivity improvement techniques in manufacturing and service sectors.
- Apply the principles of work study by conducting method studies, applying motion economy principles, and evaluating work methods to improve operational efficiency.
- Apply various work measurement techniques, including time study, activity sampling, predetermined motion time systems, and synthetic estimates, to determine standard time by incorporating performance ratings and allowances.
- Evaluate the application of Business Process Reengineering (BPR) and Total Productive Maintenance (TPM) in improving organizational productivity, operational efficiency, and continuous process improvement

Unit 1:

06

Introduction to Productivity and Value Engineering:

- Introduction to productivity, productivity concepts, macro and micro factors affecting productivity, productivity benefit model, productivity cycle, value analysis, value engineering, concepts, procedures, applications, and the role of value engineering in improving productivity.

Unit 2:

06

Productivity Models and Measurement:

- Productivity measurement at international, national and organizational levels, total productivity models, productivity management in manufacturing and service sectors, productivity evaluation models, productivity improvement models, and productivity improvement techniques.

Unit 3:

06

Work Study and Method Study:

- Importance of work study, method study, work measurement, pioneers of performance measurement, concept of method study, need for method study, procedure of method study, and principles of motion economy.

Unit 4:

06

Work Measurement Techniques:

- Techniques of work measurement including estimating, stopwatch time study, predetermined time standards, synthetic estimates of work times, activity sampling, computation of standard time, elements of work, types of elements, performance rating, allowances, need for allowances, and types of allowances.

Unit 5:

06

Business Process Reengineering and Total Productive Maintenance:

- Business Process Reengineering (BPR), concept, process, prerequisites for effective implementation, application of BPR in productivity improvement, Total Productive Maintenance (TPM), meaning, objectives, methodology, and benefits of TPM.

References:

- S. Dalela & Sourabh – Work Study and Ergonomics, Standard Publishers Distributors, New Delhi.
- Martand Telsang – Industrial Engineering and Production Management, S. Chand Publishing, New Delhi.
- O. P. Khanna – Industrial Engineering and Management, Dhanpat Rai Publications, New Delhi.
- S. N. Chary – Production and Operations Management, McGraw Hill Education (India) Pvt. Ltd., New Delhi.
- R. Panneerselvam – Production and Operations Management, PHI Learning Pvt. Ltd., New Delhi.

ON JOB TRAINING/INTERNSHIP/WORKSHOP

BVIC405P

SEMESTER-05

EXPORT AND IMPORT - POLICIES & PROCEDURES

BVIC501

Course Outcomes:

After successful completion of this course, learners will be able to:

- Explain the concepts, features, scope, benefits, and challenges of international trade, distinguish it from domestic trade, and evaluate various modes of entry into international markets.
- Analyze the framework of international trade agreements by examining bilateral, plurilateral, and multilateral agreements, and evaluate the role of GATT, WTO, TRIPS, TRIMS, GATS, Agreement on Agriculture (AoA), and trade facilitation measures in global trade.
- Evaluate the Foreign Trade Policy (FTP), export promotion schemes, export incentives, and the role of export promotion organizations and institutional frameworks in facilitating international trade.
- Explain the functions and significance of major international financial institutions, including the IMF, World Bank Group (IBRD, IDA, IFC, MIGA, ICSID), EXIM Bank, and Asian Development Bank (ADB), in promoting international trade and economic development.
- Analyze the forms and significance of regional economic integration by evaluating major regional trade groupings such as the European Union (EU), NAFTA, ASEAN, SAFTA, APEC, and other regional economic blocs.

Unit 1:

06

Introduction to International Trade:

- Meaning, features, advantages, scope, benefits and problems of international trade, comparison between domestic and international business, and methods of entry into foreign markets.

Unit 2:

06

International Trade Agreements:

- Bilateral, plurilateral and multilateral trade agreements, General Agreement on Tariffs and Trade (GATT), World Trade Organization (WTO), WTO agreements, TRIPS, TRIMS, GATS, Agreement on Agriculture (AoA), and trade facilitation issues.

Unit 3:

06

Foreign Trade Policy and Export Promotion:

- Latest Foreign Trade Policy (FTP), highlights of FTP, export incentives and schemes, Export Promotion Capital Goods (EPCG) Scheme, Focus Market Scheme (FMS), Focus Product Scheme (FPS), Market Development Assistance (MDA), Duty Drawback (DBK), institutional framework for export promotion, Export Promotion Councils (EPCs), and Directorate General of Foreign Trade (DGFT).

Unit 4:

06

International Financial Institutions:

- International Monetary Fund (IMF), World Bank, International Bank for Reconstruction and Development (IBRD), International Development Association (IDA), International Finance Corporation (IFC), Multilateral Investment Guarantee Agency (MIGA), International Centre for Settlement of Investment Disputes (ICSID), Export-Import Bank (EXIM Bank), Asian Development Bank (ADB), and their functions and role in economic development.

Unit 5:

06

Regional Economic Integration:

- Meaning and rationale of regional economic integration, forms of economic integration, European Union (EU), North American Free Trade Agreement (NAFTA), Association of Southeast Asian Nations (ASEAN), South Asian Free Trade Area (SAFTA), Asia-Pacific Economic Cooperation (APEC), and other regional economic groupings.

References:

- P. Subba Rao – International Business: Text and Cases, Himalaya Publishing House, Mumbai.
- Justin Paul – International Business, McGraw Hill Education (India) Pvt. Ltd., New Delhi.
- D. M. Mithani – International Economics, Himalaya Publishing House, Mumbai.
- Dominick Salvatore (Indian Edition) – International Economics, Wiley India Pvt. Ltd., New Delhi.
- Ministry of Commerce & Industry, Government of India – Foreign Trade Policy (Latest Edition), Directorate General of Foreign Trade (DGFT), New Delhi.

PRODUCTION AND MATERIALS MANAGEMENT

BVIC502

Course Outcomes:

After successful completion of this course, learners will be able to:

- Explain the concepts of production systems, production functions, productivity, ergonomics, and evaluate the factors influencing plant location and facility design.
- Analyze various plant layouts and maintenance systems, and recommend appropriate layout and maintenance practices to improve production efficiency and resource utilization.
- Apply the techniques of Production Planning and Control (PPC), including routing, scheduling, dispatching, expediting, Gantt charts, work study, motion study, method study, and computer applications in production management.
- Apply the principles of materials management by performing materials forecasting, planning, inventory control, and utilizing materials management information systems, including cold chain management practices.
- Evaluate store and purchase management practices by applying standardization, simplification, codification, warehouse layout, storage systems, warehouse automation, preservation methods, and materials handling equipment for effective materials management.

Unit 1:

06

Production Function and Plant Location:

- Introduction to production, production functions, design of production systems, types of production, types of production processes, productivity, ergonomics, plant location, factors influencing plant location, multi-plant location, foreign location, relocation, and recent trends in plant location.

Unit 2:

06

Plant Layout and Maintenance:

- Plant layout, types of plant layouts, process layout, product layout, layout of service facilities, maintenance, objectives of maintenance, elements of maintenance, preventive, breakdown and predictive maintenance, and maintenance management.

Unit 3:

06

Production Planning and Control:

- Production planning and control (PPC), routing, scheduling, dispatching, expediting, Gantt charts, work study, motion study, method study, work measurement, and use of computers in production planning and control.

Unit 4:

06

Materials Management and Inventory Control:

- Materials management, objectives of materials management, materials forecasting, materials planning, inventory control, materials management information system (MMIS), cold chain management, elements of cold chain management, items transported under cold chain, and temperature standards.

Unit 5:

06

Store and Purchase Management:

- Store and purchase functions, standardization, simplification, codification, store layout, storage systems and equipment, store preservation, store procedures, warehouse automation, and material handling equipment.

References:

- S. N. Chary – Production and Operations Management, McGraw Hill Education (India) Pvt. Ltd., New Delhi.
- R. Panneerselvam – Production and Operations Management, PHI Learning Pvt. Ltd., New Delhi.
- Martand Telsang – Industrial Engineering and Production Management, S. Chand Publishing, New Delhi.
- P. Gopalakrishnan & M. Sundaresan – Materials Management: An Integrated Approach, PHI Learning Pvt. Ltd., New Delhi.
- L. C. Jhamb – Materials Management, Everest Publishing House, Pune.
- B. Mahadevan – Operations Management: Theory and Practice, Pearson Education India, New Delhi.

DOMESTIC LOGISTICS MANAGEMENT

BVIC503

Course Outcomes:

After successful completion of this course, learners will be able to:

- Explain the concepts of road freight transport planning and resource management by analyzing fleet management, transport resource requirements, vehicle routing, scheduling methods, and the role of information technologies such as GPS and RFID.
- Evaluate vehicle selection decisions by analyzing different types of vehicles, vehicle operations, load characteristics, vehicle body types, acquisition methods, and their impact on transportation efficiency.
- Apply vehicle costing techniques by analyzing standing costs, running costs, overhead costs, total transport operation costs, whole-life costing, cost comparisons, and budgeting methods for effective transport cost management.
- Manage transportation documentation and information flow by preparing and analyzing road receipts, truck receipts, waybills, consignment notes, booking documents, invoices, and coordination procedures for long-haul and exceptional cargo movements.
- Explain and apply road transport regulations relating to operator licensing, driver licensing, working hour regulations, tachographs, vehicle dimensions, and legal compliance in freight transportation operations.

Unit 1:

06

Transport Planning and Resourcing:

- Need for transport planning, fleet management, main types of road freight transport, transport resource requirements, vehicle routing and scheduling issues, data requirements, manual methods of vehicle routing and scheduling, computer-based routing and scheduling, information system applications, GPS, and RFID technology.

Unit 2:

06

Vehicle Selection and Acquisition:

- Types of vehicles, types of transport operations, load types and characteristics, main types of vehicle bodies, implications of vehicle selection, and vehicle acquisition methods.

Unit 3:

06

Vehicle Costing and Budgeting:

- Reasons for vehicle costing in road freight transport, types of costing systems, vehicle standing costs, vehicle running costs, overhead costs, costing of total transport operations, whole-life costing, vehicle cost comparisons, and zero-based budgeting.

Unit 4:

06

Documentation and Information Flow in Road Transport:

- Transport documentation, planning and advice systems, Full Truck Load (FTL), Less Than Truck Load (LTL), road receipts, truck receipts, way bills (RR/LR), consignment notes, CMR documentation (EU and Canada), booking procedures, invoicing, information flow, long-haul transport coordination with terminals, and exceptional loads/project cargo.

Unit 5:

06

Road Transport Legislation and Compliance:

- Operator licensing, driver licensing, driver working hour regulations, road transport directives, tachographs, vehicle dimensions, and legal compliance requirements in road freight transport.

References:

- Satish C. Ailawadi & Rakesh P. Singh – Logistics Management, PHI Learning Pvt. Ltd., New Delhi.
- Sunil Chopra & Peter Meindl (Indian Edition) – Supply Chain Management: Strategy, Planning and Operation, Pearson Education India, New Delhi.
- Donald J. Bowersox, David J. Closs & M. Bixby Cooper – Supply Chain Logistics Management, McGraw Hill Education (Indian Edition).
- Coyle, Langley, Novack & Gibson – Supply Chain Management: A Logistics Perspective, Cengage Learning India.
- D. K. Agrawal – Textbook of Logistics and Supply Chain Management, Macmillan Education India, New Delhi.

AIR CARGO LOGISTICS MANAGEMENT

BVIC504

Course Outcomes:

After successful completion of this course, learners will be able to:

- Understand the importance of Air cargo industry.
- Understand the airline documents and other procedures needed.
- Understand the civil aviation safety and security
- Understand the dangerous (DGR) or hazardous goods in aircraft.
- Understand the airline marketing and customer service standardization in logistics.

Unit 1:

06

Introduction to Air Cargo:

- Introduction to air cargo, advantages of air cargo, aviation and airline technology, IATA areas, countries and currencies, airlines, aircraft layout, types of aircraft, aircraft manufacturers, Unit Load Devices (ULD), international air routes, airports and airport codes, consortium, and hub-and-spoke system.

Unit 2:

06

Airline Industry and Aviation Security:

- History and importance of the airline industry, navigation systems, air transport system, functions of air transport, terminal area and landside operations, civil aviation, aviation safety and security, aircraft operator's security programme, security versus facilitation, ICAO Security Manual, training and awareness, rescue and firefighting services, issues and challenges, and airline regulations.

Unit 3:

06

Airline Marketing and Customer Service:

- Airline marketing, customer service, standardization in logistics, air freight exports and imports, marketing environment, marketing research, marketing strategies and planning, market segmentation, SWOT analysis, marketing management control, consignee-controlled cargo, sales leads, routing instructions, customer service, and future trends in air cargo.

Unit 4:

06

Air Freight Forwarding and Documentation:

- Air freight forwarding, air freight exports and imports, special cargo, cargo consolidation, documentation, Air Way Bill (AWB), communication, handling Cash on Delivery (COD) shipments, Proof of Delivery (POD), conditions of contract, and transportation of dangerous or hazardous goods (DGR).

Unit 5:

06

Air Cargo Operations and Freight Rates:

- Shipment advice, booking procedures, Shipper's Letter of Instruction (SLI), cargo labeling, volume and weight ratio, shipment planning, TACT (The Air Cargo Tariff), air cargo rates and charges, aircraft types, and air cargo services.

References:

- Satish C. Ailawadi & Rakesh P. Singh – Logistics Management, PHI Learning Pvt. Ltd., New Delhi.
- Francis Cherunilam – International Business: Text and Cases, PHI Learning Pvt. Ltd., New Delhi.
- Sunil Chopra & Peter Meindl (Indian Edition) – Supply Chain Management: Strategy, Planning and Operation, Pearson Education India, New Delhi.
- R. P. Sinha – Air Transportation: A Management Perspective, Kanishka Publishers, New Delhi.
- International Air Transport Association (IATA) – Air Cargo Tariff and Rules (TACT), IATA Publications, Montreal/Geneva.

ON JOB TRAINING/INTERNSHIP/WORKSHOP

BVIC505P

SEMESTER-06

SUPPLY CHAIN MANAGEMENT

BVIC601

Course Outcomes:

After successful completion of this course, learners will be able to:

- Apply statistical techniques for data presentation and analysis by preparing tabulations, cumulative frequency distributions, histograms, measures of central tendency, and using basic concepts of probability for decision-making.
- Explain the principles of quality management by evaluating ISO certification, quality control methods, process and product control, risk management, control charts (R, P, and X charts), and acceptance sampling techniques.
- Analyze the concepts of supply chain and supply management by evaluating sourcing strategies, supply management systems, business-to-business (B2B) procurement, and strategic supply management practices.
- Evaluate buyer–supplier relationships by applying collaboration strategies, alliance management, cross-functional team approaches, Enterprise Resource Planning (ERP) systems, negotiation techniques, bidding processes, and information sharing for effective supply management.
- Integrate statistical analysis, quality management, and supply management principles to support continuous improvement, organizational efficiency, and strategic decision-making in procurement and supply chain operations.

Unit 1:

06

Statistical Presentation:

- Elements of data representation, tabulation, cumulative frequency, histogram, measures of central tendency, and basic concepts of probability theory (excluding conditional probability and Bayes' theorem).

Unit 2:

06

Quality Management Concepts:

- Quality management concepts, ISO certification, methods of quality control, product control, process control, risk control, evolution of quality management, management approaches, quality management support systems, R Chart, P Chart, X Chart, acceptance sampling, and Operating Characteristic (OC) curve in production control.

Unit 3:

06

Supply Chain Management:

- Supply management as an organization-wide activity, evolution of purchasing into supply management, supply management and organizational performance, four phases of supply management including generation of requirements, sourcing, pricing, and post-award activities, supply management systems, Business-to-Business (B2B) systems, and strategic supply management.

Unit 4:

06

Buyer–Supplier Relationship and Collaboration:

- Buyer–supplier relationships, developing and managing collaboration, alliance relationships, cross-functional teams, supply management activities, and challenges and problems in the cross-functional approach.

Unit 5:

06

ERP, Negotiation and Information Sharing:

- Enterprise Resource Planning (ERP) systems, negotiations, bidding, information sharing, and the role of information systems in effective supply management.

References:

- S. P. Gupta – Statistical Methods, Sultan Chand & Sons, New Delhi.
- S. C. Sharma – Statistical Methods, Kalyani Publishers, Ludhiana.
- P. N. Mukherjee – Total Quality Management, PHI Learning Pvt. Ltd., New Delhi.
- P. Gopalakrishnan – Purchasing and Materials Management, McGraw Hill Education (India) Pvt. Ltd., New Delhi.
- Satish C. Ailawadi & Rakesh P. Singh – Logistics Management, PHI Learning Pvt. Ltd., New Delhi.

INTERNATIONAL LOGISTICS MANAGEMENT

BVIC602

Course Outcomes:

After successful completion of this course, learners will be able to:

- Explain the concepts, evolution, functions, and significance of integrated logistics management in international business, and evaluate logistics information systems, carrier liabilities, marine cargo insurance, and the total cost approach to logistics.
- Analyze the structure and operations of the shipping industry by evaluating cargo types, vessel operations, freight practices, chartering, and the roles of intermediaries such as freight forwarders, clearing agents, freight brokers, stevedores, and shipping agents.
- Evaluate warehousing, containerization, port management, and logistics service providers by analyzing value-added logistics services, 3PL/4PL operations, container terminals, inland container depots (ICDs), port systems, and sea transport regulations.
- Analyze road transport systems by evaluating vehicle classifications, road transport operations, fleet management, logistics documentation, statutory permits, regulatory authorities, and challenges associated with road freight transportation.
- Explain the organization and operations of rail transport systems by analyzing railway freight services, wagon types, marshalling operations, freight structures, parcel and goods handling procedures, documentation, and the role of Indian Railways in integrated logistics.

Unit 1:

06

Integrated Logistics Management:

- Concept, evolution and development of integrated logistics management, importance of logistics management in international business, international logistics, logistics functions and intermediaries, issues involved in the movement of goods, logistics information systems, positioning of information in logistics, design of logistics information systems, information technology in logistics, strategic information linkage, total cost approach to logistics, liabilities of carriers, and marine insurance for cargo.

Unit 2:

06

Shipping Industry and Ocean Transport:

- General structure of the shipping industry, cargo types, vessels and vessel characteristics, liner and tramp operations, chartering of bulk ocean carriers, ocean liner conference system, freight structure and practices, coordination, and the role of intermediaries including forwarding and clearing agents, freight brokers, stevedores, and shipping agents.

Unit 3:

06

Warehousing, Containerization and Port Management:

- Warehousing, repacking and value-added services, third-party logistics (3PL) and fourth-party logistics (4PL), performance measurement of logistics systems, containerization, types of containers, Inland Container Depots (ICDs), layout and working of container terminals, port systems and sub-systems, port organization and management, responsibilities of port trusts, growth and status of ports in India, inland water transport, issues in sea transport, and regulatory authorities for sea transport.

Unit 4:

06

Road Transport Systems:

- Introduction to road transport systems, classification of vehicles, road network in India, types of roads, road transport companies, Full Truck Load (FTL) and Less Than Truck Load (LTL) operations, road parcel services, fleet management systems, integrated logistics services provided by road transport companies, documents and permits required in road transport, problems in road transport, and regulatory authorities governing road transport.

Unit 5:

06

Rail Transport Systems:

- Types of railway wagons and rakes, marshalling operations and railway yards, railway freight structure, railway parcel service operations, railway goods service operations, procedures for availing railway parcel and goods services, documentation, operations at railway goods yards and sidings, railway operations and control, and organization of Indian Railways.

References:

- Sunil Chopra & Peter Meindl (Indian Edition) – Supply Chain Management: Strategy, Planning and Operation, Pearson Education India, New Delhi.
- P. Gopalakrishnan – Purchasing and Materials Management, McGraw Hill Education (India) Pvt. Ltd., New Delhi.
- D. K. Agrawal – Textbook of Logistics and Supply Chain Management, Macmillan Education India, New Delhi.
- Coyle, Bardi & Langley – The Management of Business Logistics: A Supply Chain Perspective, Cengage Learning (Indian Edition).
- Donald J. Bowersox, David J. Closs & M. Bixby Cooper – Supply Chain Logistics Management, McGraw Hill Education (Indian Edition).

QUALITY MANAGEMENT

BVIC603

Course Outcomes:

After successful completion of this course, learners will be able to:

- Explain the concepts, evolution, principles, and economic aspects of quality management, and analyze the relationship between quality, cost, market share, competitive advantage, and organizational performance.
- Evaluate major quality management philosophies and leadership approaches, including the contributions of Deming, Juran, Crosby, and the Baldrige Framework, for achieving continuous quality improvement.
- Analyze customer requirements and apply customer-focused quality management principles to enhance customer satisfaction, product quality, and service excellence.
- Apply Quality Function Deployment (QFD), customer satisfaction measurement techniques, customer relationship management (CRM), and quality-oriented service design to improve organizational performance.
- Explain the concepts of quality control, quality assurance, quality policy, quality objectives, and leadership for quality, and evaluate the application of international quality management standards such as ISO 9001, ISO 14001, ISO 27001, ISO/TS 16949, and CMMI.

Unit 1:

06

Quality Concepts and Competitive Advantage:

- Introduction to quality, history and modern developments in quality management, definitions of quality, quality in manufacturing and service systems, economic aspects of quality, quality and price, quality and market share, quality and cost, the Taguchi Loss Function, and quality as a source of competitive advantage.

Unit 2:

06

Quality Philosophies and Leadership:

- Leadership for quality, Baldrige view of leadership, Deming's management philosophy, profound knowledge and its impact, Deming's 14 principles for management, Juran's quality philosophy and Quality Trilogy, and Crosby's philosophy of quality management.

Unit 3:

06

Customer Focus and Customer Satisfaction:

- Customer-driven quality cycle, identification of customer needs, achieving customer requirements in production, implications of the customer-driven quality cycle, customer satisfaction measurement techniques, and customer relationship management (CRM) techniques.

Unit 4:

06

Quality Function Deployment and Service Quality:

- Quality Function Deployment (QFD), QFD process, House of Quality, implementation of QFD, designing quality into services, service needs identification, and service system design.

Unit 5:

06

Quality Control, Quality Assurance and Quality Standards:

- Quality control, quality assurance, quality policy, quality objectives, leadership for quality, quality management standards including ISO 9001:2000 Quality Management System, ISO 14001:2004 Environmental Management System, ISO 27001:2005 Information Security Management System, ISO/TS 16949:2002 for the automobile industry, and fundamentals and concepts of Capability Maturity Model Integration (CMMI).

References:

- Dale H. Besterfield – Total Quality Management, Pearson Education India, New Delhi.
- James R. Evans & William M. Lindsay – Managing for Quality and Performance Excellence, Cengage Learning (Indian Edition).
- Subburaj Ramasamy – Total Quality Management, Tata McGraw Hill Education (India) Pvt. Ltd., New Delhi.
- Kanishka Bedi – Quality Management, Oxford University Press India, New Delhi.
- O. P. Khanna – Industrial Engineering and Management, Dhanpat Rai Publications, New Delhi.

ENTREPRENEURSHIP DEVELOPMENT

BVIC604

Course Outcomes:

After successful completion of this course, learners will be able to:

- Explain the concepts of entrepreneurship, enterprise, and entrepreneurial competencies, and analyze the characteristics, types, opportunities, and challenges of entrepreneurship, including women entrepreneurship.
- Analyze entrepreneurial traits, motivation, leadership, creativity, innovation, and startup ecosystems, and apply idea-generation techniques to identify viable business opportunities.
- Evaluate the role of entrepreneurial development institutions, government policies, financial assistance schemes, and incentives available for startups and MSMEs to support enterprise development.
- Prepare a comprehensive business plan by integrating financial, marketing, human resource, technical, and social aspects while identifying common pitfalls in business planning.
- Apply the procedures for launching and managing a business venture by completing statutory formalities, obtaining necessary approvals and registrations, and evaluating project performance through feedback and follow-up mechanisms.

Unit 1:

06

Introduction to Entrepreneurship:

- Introduction to entrepreneurship, entrepreneur and enterprise, importance and relevance of entrepreneurship, factors influencing entrepreneurship, advantages and disadvantages of being an entrepreneur, women entrepreneurs, problems and promotion of women entrepreneurship, types of entrepreneurs, characteristics of a successful entrepreneur, and entrepreneurial competencies.

Unit 2:

06

Entrepreneurial Traits and Innovation:

- Entrepreneurial traits, motivation and development, types of startups, entrepreneurial theories, entrepreneurial leadership, international entrepreneurship, opportunities and challenges, sources of innovative ideas, entrepreneurship and creativity, techniques for generating business ideas, and impediments to creativity.

Unit 3:

06

Entrepreneurial Development Institutions and Government Support:

- Entrepreneurial Development Institutions (EDIs), policy initiatives, implementation of projects, financial assistance through SFCs, SIDBI, commercial banks, KVIC and NABARD, financial incentives and tax concessions for MSMEs, policies for the North Eastern Region, role of government in entrepreneurship development, recent trends, and Vision 2020 of Sikkim.

Unit 4:

06

Business Plan Development:

- Preparation of a business plan, typical business plan format, financial, marketing, human resource, technical and social aspects of a business plan, preparation of business plans, and common pitfalls to be avoided while preparing a business plan.

Unit 5:

06

Enterprise Launching and Project Implementation:

- Launching a business enterprise, steps involved in starting a business venture, selection of location, legal formalities, trade licence, approvals, environmental clearance, registration, project control, feedback and follow-up, preparation of a feasible business plan in groups, and case studies for understanding entrepreneurship practices.

References:

- Ramachandran, K.(2016), Entrepreneurship Development, Tata McGraw Hill, India
- Kumar, Arya, (2010) Entrepreneurship: Creating and Leading an Entrepreneurial Organization, Pearson, India.
- Hishrich., Peters,(2008) Entrepreneurship: Starting, Developing and Managing a New Enterprise, Irwin.
- Roy, Rajeev(2015), Entrepreneurship, Oxford University Press.
- Kuratko, D.F., and T. V. Rao,(2010) Entrepreneurship: A South-Asian Perspective, Cengage Learning.

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