

**Syllabus of 2<sup>nd</sup>  
DGR  
Certificate Course  
in Executive  
Business  
Management for  
Defence officers**



## Arun Jaitley National Institute of Financial Management, Faridabad

### MODULE – I

| Paper Code | Title of the Paper  | Credit | Session |
|------------|---|--------|---------|
| 101        | Financial Accounting  | 3 cr   | 30 hrs  |
| 102        | Managerial Economics  | 3 cr   | 30 hrs  |
| 103        | Management of Information Systems, Data Analytics and Business Intelligence | 3 cr   | 30 hrs  |
| 104        | Organizational Behaviour & Business communication                           | 3 cr   | 30 hrs  |
| 105        | Research Methodology  | 3 cr.  | 30 hrs  |
| 106        | Financial Management and Analysis   | 3 cr   | 30 hrs  |
| 107        | Cost and Management Accounting  | 3 cr   | 30 hrs  |
| 108        | Human Resource Management   | 3 cr   | 30 hrs  |

Exam 1: In the last week of week 12, an exam will be conducted covering the topics of the first module.

### MODULE: II

| Paper Code | Title of the Paper                                    | Credit | Session |
|------------|---|--------|---------|
| 201        | Data Analysis & Design Tools                          | 3 cr   | 30 hrs  |
| 202        | Production and Operation Management                   | 3 cr   | 30 hrs  |
| 203        | Design thinking, Innovation & Entrepreneurship        | 3 cr   | 30 hrs  |
| 204        | Legal Environment of Business                         | 3 cr   | 30 hrs  |
| 205        | Project Planning, Evaluation, Financing & Management. | 3 cr   | 30 hrs  |
| 206        | Elective Paper-I                                      | 3 cr   | 30 hrs  |
| 207        | Elective Paper- II                                    | 3 cr   | 30 hrs  |

Exam 2: In the last week of week 24, an exam will be conducted covering the topics of the second module.

#### **Elective Paper-I**

1. Supply Chain Management
2. International management
3. Security Analysis & Portfolio Management

#### **Elective Paper- II**

1. Financial Derivatives
2. Fixed Income Securities
3. Managing E-Business.

**Project work (15 Credit)**

**Note:** An independent project has to be submitted within the course duration by every participants.

# ***MODULE - I***

# **FINANCIAL ACCOUNTING**

(3 Cr - 30 hrs)

## **Unit – I**

### **1. Conceptual Framework of Accounting:**

- Cash and Accrual Accounting; Users of Financial Statements;
- Capital of a Firm; Structure of Business Firms;
- Objectives of Corporate Financial Reporting; Components of Financial Statements;
- Accounting Principles; Accounting Concepts; Accounting Conventions;
- Qualitative Characteristics of Financial Statements; True and Fair View;
- Accounting Policy and Accounting Standards; and Accounting Standard on Disclosure of Accounting Policies.

### **2. Accounting Records and Systems:**

- Journal including understanding of Debits and Credit using the traditional and Modern Methods and concept of Real, Nominal and Personal Accounts.
- Ledger
- Trial Balance
- Cash Book and Bank Reconciliation Statement.

## **Unit – II**

### **3. Balance Sheet:**

- Accounting Equation;
- Balance Sheet Structure;
- Assets; Currents Assets; Non-Currents Assets; Classification of Assets;
- Liabilities; Current Liabilities; Non-Currents Liabilities; Secured and Unsecured Liabilities; Classification of Liabilities;
- Accounting Standards relating to Contingencies and Events Occurring after the Balance Sheet Date.

### **4. Structure of the Statement of Profit and Loss:**

- Nature of the Statement of Profit and Loss; Expenditure/Expenses, Income;

## **Unit – III**

### **5. Analysis of Financial Statements:**

- Introduction; Tools for Financial Statement Analysis;
- Ratio Analysis (Liquidity Ratios, Solvency Ratio, Activity Ratios, Profitability Ratios, Capital Market Based Ratios and Predictive Ratios);
- Limitations of Analysis of Financial Statements.

# **MANAGERIAL ECONOMICS**

**(3 Cr - 30 hrs)**

## **Unit I:**

### **Conceptual and theoretical understanding (12 Sessions)**

1. Overview of Microeconomics: Laws of supply and demand, elasticity, opportunity cost, market equilibrium and forms of competition.
2. Introduction to macroeconomics: Key macro and micro variables; Inflation and its social costs; hyperinflation; Inflation, unemployment and expectations; Phillips curve; Policy ineffectiveness debate;
3. Fiscal and monetary policies: Objectives and targets; Government's budget constraint; government debt and Ricardian equivalence; RBI and Monetary Policy;
4. Overview of select Economic Growth theories; modern theories of endogenous growth; Open economy models;
5. Measuring the economy: GDP and components, Measurement of GDP; Income, expenditure and the circular flow; Real versus nominal GDP; Price indices; National income accounting for an open economy; Balance of Payments: Current and Capital Accounts.
6. Challenges of Growth: Poverty and inequality; economic inequality, regional disparity, unemployment and jobless growth;
7. Alternative measures of growth.

## **Unit II:**

### **International Trade and Financial Institutions (08 Sessions)**

8. Overview of select International Trade theories & models like Ricardian trade theory - notion of comparative advantage and gains from trade due to specialization; Heckscher-Ohlin theory: factor price equalization; Krugman model; Distributional effects of trade; Trade, production patterns and world inequality; financial instability in a globalised world;
9. Economics and politics of multilateral agreements: Washington Consensus and boost to transnational economic and trade engagements; WTO mechanism;
10. Global and regional economic forums for cross-border business and trade: Regional economic integration; EU, APEC, ASEAN, RCEP, TPP, NAFTA, MILA etc.; Indian perspective;
11. International Financial Institutions: Role of international financial institutions in economic development, forex management and international trade and business;

## **Unit III:**

### **India in the Global Perspective of Business and Commerce (06 Sessions)**

1. India's Trade policy: instruments of trade policy; tariffs, quotas, export subsidies, voluntary export restraints; Political economy of trade policy;
2. Role of financial markets and institutions in India: Financial institutions and market intermediaries; markets, instruments and financial innovations; financial crises; Regulation of financial markets; Regulatory bodies and structures;
3. Banking and Insurance Systems in India: Indian banking system - Changing role and structure; Problem of twin balance sheets and NPAs; Insurance Sector in India; Banking and Insurance Sector Reforms;
4. Money and Capital Markets in India: Organisation, structure and reforms;

## **Section B: Perspectives on Indian Economy**

### **Unit IV:**

#### **Indian Economy (10 Sessions)**

1. India as an Emerging Economy: Major developmental issues and constraints; Economic development and occupational distribution; Experiences of structural changes in emerging economies; Changing profile of GDP and employment in India; Labour force participation - Inter-State Variations;
2. Infrastructure in Indian Economy: Social infrastructure – Education and Health;
3. Indian Agriculture: Reforms in Agricultural Marketing.
4. Indian Industry: Industrial scenario in India; Structure of major industries, Industrial policy, Small Scale Enterprises; Informal Sector and Problems; Technology and Business Interface;
5. Tertiary Sector in Indian economy: India's foreign trade; BoP; SEZ; FEMA and PMLA.

# **MANAGEMENT OF INFORMATION SYSTEMS, DATA ANALYTICS AND BUSINESS INTELLIGENCE**

## **Unit 1: Management Information Systems (MIS)**

- **Topics:**
  - Introduction to MIS: Define MIS, its role in organizations, and its impact on decision-making.
  - Business Processes and IT: Explore how information systems support and automate business processes.
  - Enterprise Systems: Understand the major types of enterprise systems (ERP, CRM, SCM) and their benefits.
  - IT Infrastructure and Cybersecurity: Learn about hardware, software, networks, and data security measures.
  - Digital Transformation: Discuss the use of technology to change business models and improve efficiency.
  - Data Ethics and Governance: Explore ethical considerations related to data collection, storage, and use.
- **Activities:**
  - Case studies analyzing how companies use MIS to gain a competitive advantage.
  - Group project designing a simple information system for a small business.
  - Discussion on the ethical implications of emerging technologies like AI.

## **Unit 2: Data Analytics with Excel**

- **Topics:**
  - Excel Fundamentals: Master spreadsheet basics, data entry, and formatting.
  - Data Cleaning and Preparation: Learn techniques for handling missing data, errors, and inconsistencies.
  - Data Analysis Tools: Use pivot tables, charts, and graphs to summarize and visualize data.
  - Formulas and Functions: Apply powerful functions like VLOOKUP, INDEX-MATCH, SUM, AVERAGE, and COUNT.
  - Dashboard Creation: Build interactive dashboards to communicate insights effectively.
- **Activities:**
  - Hands-on exercises analyzing real-world datasets (e.g., sales data, customer surveys).
  - Individual project creating a dashboard to track business finances and marketing metrics.
  - Competition to design the most informative and visually appealing data visualization.

## **Unit 3: Predictive Analytics with Python**

- **Topics:**
  - Python Basics: Introduction to Python syntax, data types, and control flow.

- Data Manipulation with Pandas: Learn to load, clean, and transform data using the Pandas library.
- Machine Learning with Scikit-learn: Implement regression, classification, and clustering algorithms.
- Model Evaluation and Selection: Understand metrics for assessing model performance and choosing the best model.
- Feature Engineering: Techniques for creating new features that improve model accuracy.
- Model Deployment: Explore methods for deploying models into production environments.
- **Activities:**
  - Guided projects building predictive models for tasks like customer churn prediction or sales forecasting.
  - Kaggle competitions participating in real-world machine learning challenges.
  - Research paper exploring the latest advancements in predictive analytics.

#### **Unit 4: Business Intelligence with Power BI**

- **Topics:**
  - Data Integration and ETL: Connect to various data sources and transform data into a suitable format.
  - Data Modeling: Design a star schema or snowflake schema to organize data for analysis.
  - DAX Calculations: Write DAX expressions to create calculated columns and measures.
  - Visualization Techniques: Build interactive charts, graphs, and maps to present data insights.
  - Report and Dashboard Design: Create visually appealing reports and dashboards to communicate findings.
  - Self-Service BI: Empower users to explore data and generate their own reports.
- **Activities:**
  - Collaborative project building a Power BI dashboard to track company performance.
  - Guest lecture from a BI professional sharing real-world experiences.
  - Hackathon to develop innovative BI solutions for specific business problems.

#### **Unit 5: Introduction to Generative AI**

- **Topics:**
  - AI Fundamentals: Overview of artificial intelligence, machine learning, and deep learning concepts.
  - Generative Models: Learn key terms associated with Generative AI.
  - Text Generation: Explore applications like chatbots, language translation, and content creation.
  - Image Generation: Discover techniques for generating realistic images and artwork.
  - Music and Art Generation: Explore AI's role in composing music and creating visual art.
  - Ethical Considerations: Discuss the potential risks and biases associated with generative AI.
- **Activities:**

- Experiment with text generation tools like ChatGPT to create stories or poems.
- Use image generation tools to produce unique artwork or designs.
- Debate the potential impact of generative AI on business functions.

# **ORGANIZATIONAL BEHAVIOUR & BUSINESS COMMUNICATION**

**(3 Cr- 30 hrs**

## **Contents: ORGANIZATIONAL BEHAVIOUR**

### **Unit – I:**

Management, Introduction to Management and Management Process: Introduction, Importance of Management, Evolution of Management Thought, Principles of Management, Management Process/Functions, and a System View.

### **Unit – II:**

O.B. Introduction: Historical Perspective, Approaches and Importance, Contributing Disciplines to O.B., O.B. Process, Models of O.B. Individual Perspective : Personality-Definition and Determinants, Personality Traits, Personality Attributes affecting OB, Values and Ethics; Attitudes, Learning; Definition and Importance of Motivation, Contemporary Theories in Motivation, Motivational Tools in Organization.

### **Unit – III:**

Group Dynamics: Group Behaviour in Organization; Organizational Conflicts; Job Stress; Team Building, Leadership.

Organizational Perspective: Organisational Structure, Design & Change; Organizational Culture and Development; Quality of Working Life; International Organizational Behaviour.

## **Contents: BUSINESS COMMUNICATION**

### **Unit I:**

#### **Introduction to Communication**

- Role and Objectives of Communication
- Communication Process
- Basics of Communication (7Cs)
- Types of Communication
- Verbal and Non-Verbal Skills
- Presentation Skills
- Barriers of Communication
- Listening Skills
- Cross Cultural Communication
- Business Etiquettes across cultures.

### **Unit II:**

#### **Intra and Interpersonal Communication**

- Intrapersonal Communication and its importance
- Modes of communication
- Role of Emotions in Inter Personal Communication
- Communicating in teams, Negotiation Skills
- Assertiveness Skills
- Communication skills during a conflict
- Communication in Social Media and Digital Communication

### **Unit III:**

#### **Written Communication**

- Planning and executing different types of messages
- Letter writing, Meetings
- Use of Technology in business Communication
- Telephone Communication, Email Messages
- Noting & Drafting
- Reply to Parliamentary Questions
- Preparation of Notes for SFC/EFC/CCEA/CC

#### **Unit IV:**

##### **Report writing**

- Report Writing
- Structure of Reports
- Negative Persuasive and Special Reporting
- Formal Reports- Literature Review, Citation, Bibliography
- Drafting Policy Proposals and Policy Memos
- Plagiarism and how to avoid plagiarism in writing Reports
- Organization of Press Report

# **RESEARCH METHODOLOGY**

## **Unit 1: Problem Definition**

- Nature and purpose of scientific enquiry.
- Parameters of research; Definition of construct and variables.
- Introduction to Research.
- Research Process.
- Steps in Research Process.

## **Unit 2: Research Design**

- Concepts and type of research design.
- Design of research on the basis of application pure and applied
- Design of research on the basis of Techniques/Methodology-Exploratory and Descriptive.
- Descriptive Research-Qualitative and Quantitative;
- Quantitative-Field Studies, Field experiments and laboratory experiments;
- Sampling and Data collection: Population and samples, techniques of sampling-random, stratified, systematic, multistage sampling, primary and secondary sources of data;
- Design of questionnaire.

## **Unit 3: Literature Review, Data Preparation & Hypothesis Development.**

- Conducting a literature review
- Data types; Data file preparation, Basic Measurement scales, Nominal, Ordinal, Interval, Ratio & Likert's Scale.
- Statistical Decision in Hypothesis testing, Type I Error, type II Error,
- Report writing.

## **Unit 4: Analysis and interpretation of Data**

- Selection of appropriate statistical techniques (Parametric and Non-Parametric)
- Interpretation: Statistical Data Analysis.
- ANOVA, Chi square test, t-test, correlation and regression.
- Application of statistical software in research using SPSS
- Time series modelling using E-views and R.

# **FINANCIAL MANAGEMENT AND ANALYSIS**

## **Unit – I**

### **Financial Management: (06 Sessions)**

- Evolution; Objectives and the issue of sustainability;
- Principles of Financial Decision Making;
- Time Value of Money (future and present value)
- Risk and return trade-off; and
- Valuation of Bonds and Shares

## **Unit – II**

### **Investment Decisions: (06 Sessions)**

- Capital Budgeting Decisions; Estimation of Cash flows.
- Appraisal Methods (Payback period, Net Present Value (NPV), IRR, Profitability Index, NPV v/s IRR; and Capital Rationing
- Risk analysis in Capital Budgeting (Sensitivity Analysis, and Certainty Equivalent Approach);
- Cost of Capital (the hurdle rate): Meaning and Concept; Calculation of Weighted Average Cost of Capital

## **Unit –III**

### **Financing Decisions: (06 Sessions)**

- Capital Structure; Theories and Value of the firm – Net Income Approach; Net Operating Income Approach; Traditional Approach; Modigliani Miller Model; Determining the optimal Capital Structure; and EBIT-EPS Analysis
- Concept of Leverage: Types of Leverage: Operating Leverage; Financial Leverage; and Combined Leverage

## **Unit – IV**

### **Dividend Decisions: (06 Sessions)**

- Dividend Policy: Factors determining Dividend Policy;
- Theories of Dividend- Gordon Model; Walter Model; and MM Hypothesis
- Forms of Dividend – Cash Dividend, Bonus Shares, Stock Split, and Bonus Debenture

## **Unit – V**

### **Working Capital Management: (06 Sessions)**

- Working Capital Management
- Cash Management
- Receivables Management, and Inventory Management.

# **COST AND MANAGEMENT ACCOUNTING**

(3 Cr - 30 hrs)

## **Unit – I**

### **Introduction to Cost and Management Accounting:**

- Definition, scope, objectives and significance of Cost Accounting
- Relationship of Cost Accounting with Financial and Management Accounting

### **Legal Framework of Cost Accounting**

- Provisions relating to maintenance of cost audit records as per Companies Act, 2013

## **Unit – II**

### **Cost Ascertainment and Allocation**

- Material Cost & control (Including AS-6)
- Labour and Employee Costs & Control(including AS-7)
- Overheads cost & control (including (As-3)

## **Unit – III**

### **Introduction to Methods of costing**

- Job Costing
- Batch Costing
- Contract Costing
- Process Costing (including allocation of Joint Cost - CAS-19)

## **Unit – IV**

### **Cost accounting techniques**

- Marginal Costing – Contribution, PV ratio, break-even analysis, Optimum Utilization of Resources (Make or Buy, Evaluation of Orders, Multiple scarce resource problems, and Product sales pricing)
- Standard Costing & Variance Analysis – concept of standard cost, importance of variance analysis
- Budget and Budgetary Control – Process of budgeting, principal budget factor, flexible budget, zero base budgeting
- Costing of Services
- Relevant Cost; Differential Cost; Incremental Cost; and Opportunity Cost.

## **Unit –V**

### **New Developments in Cost and Management Accounting:**

- Life Cycle costing;
- Target Costing
- Transfer Pricing;
- Balance Score Card
- Responsibility Accounting

# **HUMAN RESOURCE MANAGEMENT (HRM)**

**(3 Cr - 30 hrs)**

## **Unit - I**

**Human Resource Management:** Nature and scope of Human Resource Management, its Evolution And Development, HR Philosophy, Policies, Procedures and Practices, HRM in India.

## **Unit – II**

**Acquisition of Human Resource:** Human Resource Planning, Job Analysis and Design, Recruitment and Selection, Placement, and Induction, Internal Mobility and Separation.

## **Unit – III**

**Development of Human Resource:** Managerial Competencies and Career Development, Employee Training, Executive Development, Career Planning.

## **Unit - IV**

**Maintenance of Human Resource:** Compensation Management, Performance Management and Appraisal, Workers' Participation in Management, Grievance Resolution, Industrial Relations, Trade Unions, Collective Bargaining, Labour Codes.

## **Unit – V**

**Control of Human Resource:** Competency based Human Resource Management, Talent Management, Human Resource Information System, Managing Gen-Y Employees, and International Human Resource Management and Cultural Considerations.

# ***MODULE - II***

# **DATA ANALYTICS & DESIGN TOOLS**

(3 Cr - 30 hrs)

## **UNIT-I**

### **1. Digital Government**

- Towards Faceless, Paperless , Cashless, SMART Government
- Key features of Digital India & Smart City Programme
- Financial inclusion through JAM Trinity
- Tax reforms
- Legal frameworks (IT Act, Data Protection Bill)
- Important Case studies
- Rise of Big Data & fact based Decision Making

## **UNIT-II**

### **2. Data Science, RDBMS & Analytics**

Overview, RDBMS, Data Structure, HDBMS, RDMS, Cloud Database, SQL, Authentic Data Repositories, Understanding Analytics, Scope of Analytics in Government Tool: Ms-Access/ SQL

## **UNIT-III**

### **3. Pictorial Representation of Data**

- Introduction to Spreadsheet and its uses, Formulas, Built-in Functions, Analytics on Spread Sheets
- Pivot Tables, Frequency Tables and Histograms
- Analyzing Relationship with Scatter plots
- Correlations: Indicators of Linear Relationships, Simple Linear Regression
- Case Studies based on data from data.gov.in, website of various Ministries
- Analytical Tool: Ms-Excel, StatPro, IDEA

## **UNIT – IV**

### **4. Data Governance & Data Analytics through Tableau**

- Tableau Software Ecosystem
- Dealing with Data Quality Problems and Standardization
- Data Cleaning and Transformation
- Workspace Controls, Data Connection, Menu, Leveraging Toolbar Icons
- Data Window, Data Types and Aggregation

### **5. Visual Analytics**

- 6-V Data characteristics,
- Building Visualizations with Row and Column Shelves
- Measure Values and Measure names
- Understanding color in Icons and Pills
- Trends and Outliers

## **UNIT – V**

### **6. Data Mining**

- Information Drill Down through Hierarchies & Filters
- Creating and Using Filters, Filter Shell
- Group Dimensions
- Creating Customized Data Fields
- Taming Data with Measure Names and Values

### **7. Predictive Analysis and Dashboards**

- Developing an Ad Hoc Analysis Environment
- Generating New Data and Forecasts
- SMART Dashboards to facilitate Analysis and understanding of information
- Cascading Dashboard Designs to improve load speeds
- Navigation, Embedding a Live Website in a Dashboard

### **8. Cyber Security Issues & PKI**

- Cryptography
- Public key Infrastructure
- Case study on Cyber Frauds

# **PRODUCTION AND OPERATIONS MANAGEMENT**

(3 Cr - 30 hrs)

## **Unit – I**

**Introduction** nature and scope of production and operations management historical evolution  
– types of manufacturing systems difference between manufacturing and service operations  
– role of production and operations manager.

## **Unit – II**

**Production, Planning and Control:** Stages in Production, Planning and Control, Production, Planning and Control in mass batch and job order manufacturing industry, aggregate planning, capacity planning and maintenance planning.

## **Unit – III**

**Plant location and Layout:** Plant Location Planning, Plant Layout Planning, Types of Layouts material handling equipment's, material handling principles, models used in lay out designs.

## **Unit – IV**

**Productivity:** factors affecting productivity, Job Design, process flow charts methods study, work measurement engineering and behavioural approaches.

## **Unit – V**

**Material management:** costs associated with inventory economic order quantity ABC analysis Materials Requirement Planning (MPP), Just In Time (JIT) production, Total Quality Management (TQM), acceptance sampling, control charts, quality circle zero defects programmes, ISO 9000, Application of Computer in Production & Operations Management.

# **DESIGN THINKING, INNOVATION & ENTREPRENEURSHIP**

(3 Cr - 30 hrs)

## **Unit 1: Operational Framework and Types of Entities**

- Proprietorship, Partnership, LLP, Private Limited, Limited and Listed Companies.

## **Unit 2: Evolution of Finances**

- Crowd-funding, Bank/MUDRA loan, VC/PE, Listing on SME, Main Board Listing.

## **Unit 3: Start-up Ecosystem and Angel Financing**

- Finding a mentor or a CEO Coach;
- Advantages of Angel Support;
- Indian Model;
- Detroit and Silicon Valley Model (Cluster);
- Cambridge Model (Endogenous);
- Côte d'Azur Model (Exogenous).

## **Unit 4: Management of Entrepreneurship**

- Managing the Board and Shareholders;
- Managing a growing team;
- Managing technology in transition;
- Managing growth and competition;
- Succession Planning.

## **Unit 5: Incentives and Subsidies**

- Subsidies;
- Subventions;
- Tax Incentives.

## **Unit 6: Legal Aspects**

- Shareholder Agreements;
- Pledging of Shares;
- Divestment.

# **LEGAL ENVIRONMENT OF BUSINESS**

**(3 Cr - 30 hrs)**

## **Unit – I**

**Introduction to Law:** Meaning of Law and its Significance; Relevance of Law to Modern Civilized Society; Sources of Law; Legal Terminology and Maxims; and Understanding Citation of Cases.

**Elements of Law relating to Indian Contracts:** Essential elements of a Valid Contract; indemnity and Guarantee; Bailment and Pledge; Law of Agency; E-contract; and Landmark judgments.

**Elements of Law relating to Sale of Goods:** Essentials of a Contract of Sale; Sale Distinguished from Agreement to Sell, Bailment, Contract for Work and Labour and Hire-Purchase; Conditions and Warranties; Transfer of Title by Non-Owners; Doctrine of Caveat Emptor; Performance of the Contract of Sale; Rights of Unpaid Seller.

## **Unit – II**

**Elements of Law relating to the Companies:** An Overview; Nature and Kinds of Companies; Formation of a Company; Company Management; Company Meetings and Company winding up.

**Elements of Law relating to Partnership and LLP:** Nature of Partnership and Similar Organization – Co-Ownership, HUF; Partnership Deed; Rights and Liabilities of Partners; New Admitted, Retiring and Decreased Partners; Implied Authority of Partners and its Scope; Registration of Firms; Dissolution of Firms and of the Partnership; and Limited Liability Partnership Act.

## **Unit – III**

**Elements of Law relating to Negotiable Instruments:** Definition of a Negotiable Instruments Negotiable by Law and by Custom; Types of Negotiable Instruments; Parties to a Negotiable Instrument – Duties, Rights Liabilities and Discharge; Material Alteration; Crossing of Cheques; Payment and Collection of Cheques and Demand Drafts; and Presumption of Law as to Negotiable Instruments.

## **Unit – IV**

**Elements of Law relating to Foreign Exchange Management**

**Elements of Law relating to Consumer Protection:** Consumer Protection in India; Rights of Consumers; Consumer Dispute Redressal Forums; Nature and Scope of Remedies.

# **PROJECT PLANNING, EVALUATION, FINANCING AND MANAGEMENT**

**(3 Cr - 30 hrs)**

## **Unit – I**

**Introduction:** Project: Important, Features, Types; Significance, Resource Allocation Framework; Value Chain Analysis of the Project; Generation of Ideas; and Tools for Identifying Investment Opportunities.

**Project Costing & Appraisal:** Breakdown structure of the project; Factors affecting the cost of the project; Life cycle costing Appraisal: Marketing, Technical, Political, Financial, Social; and Preparation of detailed project report.

## **Unit – II**

**Financial Analysis:** Estimation of cost of project & Means of financing; Estimates of sales and production; Working capital requirement and financing; Projected cash flows of project; Basic principles of measurement of cash flows; Project Investment Criteria (including the selection of appropriate method); Choice between Mutually Exclusive Projects and Unequal Life; Inflation.

## **Unit – III**

**Cost of Capital:** Types & Measure of risk; Sensitivity & Scenario Analysis; Special decision situations; Calculation of cost of Capital: Capital Asset Pricing Model (CAPM), and Weighted cost of capital:

**Social Cost Benefit Analysis (SCBA):** Rationale of Social Cost Benefit Analysis; United Nations Industrial Development Organization (UNIDO) Approach; Little and Mirrlees Approach; Shadow Prices;

## **Unit – IV**

**Arrangement of Funds:** Traditional sources of financing (Equity shares, preference shares, Debentures/bonds, loan from financial institutions); Alternative sources of financing (Foreign Issues, Foreign direct investment (FDI) & Foreign Institutional Investors, External Commercial Borrowing (ECB), Private Equity, Securitization, Venture Capital etc.); Public Private Partnerships: Forms, Guidelines, Problems, Issues; Project Financing; Managing Risks in Private Infrastructure Projects; and Financial Structure and Corporate Governance.

**Project Implementation:** Practical and Legal aspects; Tendering Process, Escrow; Network analysis: Critical Path Method (CPM), Programme Evaluation Review Technique (PERT).

## **Unit – V**

**Project Review and Control:** Time and Cost control; Performance review; Project control system and Management Information System (MIS); Project Audit, Auditing and Control.

# ***ELECTIVE PAPERS- I***

# **SUPPLY CHAIN MANAGEMENT**

(3 Cr - 30 hrs)

## **Unit – I**

**Supply Chain Management:** Logistics and Supply Chain Management; Role of Logistics in the Economy; Principles of Supply Chain Management; and Customer Focus in Supply Chain Management.

## **Unit – II**

**Design and Management of Supply Chain Management:** Models for Supply Chain Management Integration; Strategic Supply Chain Management; and Organization for Global Markets.

## **Unit – III**

**Information Technology, Cost and Benchmarking in Supply Chain Management:** Information Technology Packages in Supply Chain Management; Cost and Performance Measurement in Supply Chain Management; and Best Practices and Benchmarking for Supply Chain Management

# **INTERNATIONAL MANAGEMENT**

(3 Cr - 30 hrs)

## **Unit – I**

### **1. Core Business Courses:**

- Accounting and Financial Management
- Marketing Management
- Operations Management
- Organizational Behavior
- Strategic Management
- Business Ethics and Corporate Social Responsibility

### **2. International Business Fundamentals:**

- International Business Environment
- International Trade and Finance
- Global Business Strategy

### **3. Global Marketing and Sales:**

- International Marketing
- Market Entry Strategies
- Global Branding and Advertising

## **Unit – II**

### **4. International Operations and Supply Chain Management:**

- Global Supply Chain Management
- Logistics and Transportation

### **5. Global Human Resource Management:**

- International HR Practices
- Expatriate Management
- Cross-Cultural Communication

### **6. International Finance:**

- Multinational Corporate Finance
- Exchange Rate Management
- Risk Management in International Business

### **7. Legal and Ethical Considerations:**

- International Business Law
- Ethical Issues in International Management

# **SECURITY ANALYSIS AND PORTFOLIO MANAGEMENT**

(3 Cr - 30 hrs)

## **Unit – I**

**Understanding Investments and Securities Markets:** The Investment Decision Process, Investment vs. Speculation; Common Errors in Investment Management; The Indian Securities Market: Constituents, Regulations and Trading; Investment Alternatives: Marketable and Non-marketable Securities

Returns and Risks; Qualities of Successful Investment; Measurement of Risk and Return: Ex-post and Ex-ante; and Risk and Return in a Portfolio Context up to three Securities.

## **Unit – II**

**Portfolio Theory:** Introduction to Portfolio Theory; Portfolio Return and Risk; Measurement of Movements in Security Returns; Markowitz and Efficient Frontier; Optimal Portfolio; and Riskless Lending and Borrowing.

**Asset Pricing Models:** The Capital Asset Pricing Model (CAPM); Empirical Evidence on Capital Asset Pricing Model; Security Market Line; Arbitrage Pricing Theory; and Other Multifactor Models.

**Market Efficiency:** Various Forms of Efficient Markets; Tests and Implications of Various Efficiency Levels; and Implications for Investment Analysis.

## **Unit – III**

**Fundamental Analysis:** Economic Analysis: Global and Domestic Economic Indicators, Business Cycles; and Industry Analysis: Analysis of Industry and Sectors, Macroeconomic Analysis, Life Cycle and Competitive Analysis, Industry.

**Forecasts: Company Analysis:** Analysis of Company Strategies, Interpretation of Financial Results, Earnings and Profitability Estimation; and Tools for Judging Undervaluation or Overvaluation.

## **Unit – IV**

**Fixed Income Securities:** Bond Characteristics; Bond Prices; Bond Yields; Determinants of Interest Rates; Pricing and Valuation; Interest rate risk and Bond Prices; Duration and Immunization; and Bond Portfolio Management.

**Valuation of Equity:** Discount Models (Dividend & Free Cash Flow); Relative Valuation methods (PE, P/BV, MV/BV etc.); Other Comparative Valuation Ratios; Forecasting the Aggregate Stock Market Returns; and Issues and Perspectives on Valuation.

## **Unit – V**

**Technical Analysis:** Conceptual Framework; Charting Techniques; Technical Indicators; Testing Technical Trading Rules; Evaluation of Technical Analysis; and Moving Averages and Stochastic Indicators.

**Portfolio Management:** Specification of Investment Objectives; Portfolio Selection and Strategies; Portfolio Rebalancing; and Application of Derivatives Futures & Options in Portfolio Management

**Evaluation of Performance:** Measures of Return; Risk Adjusted Measures of Performance; Market Timing; and Other Issues in Performance Evaluation.

# ***Elective Paper- II***

# **FINANCIAL DERIVATIVES**

(3 Cr - 30 hr)

## **Unit I**

**Financial Risk Management:** Risk Management as a process; Risk Governance; Identifying Risks; Measuring Risk; Managing Risk.

**Overview of Derivatives:** Introduction to derivatives; OTC and Exchange Traded Derivatives; Types of Financial Derivatives- Forwards, Futures, Options, SWAP and others; Types of Traders- Hedgers, Speculators and Arbitrageurs.

## **Unit II**

Forward Contracts: **Pricing and Valuation of Forward Commitments; Differences between Forward and Futures Contracts.**

Futures Contracts Valuation and Strategies: **Types of Futures Contracts-** Index Futures, Stock Futures, Currency futures, Interest Rate Futures; **Mechanics of Buying & Selling Futures Contracts;** Payoff of Futures Contracts; Risk Management Applications of Futures Strategies; Valuation of Futures Contracts. **Status of Forward and Futures Market in Indian Context.**

## **Unit III**

**Options Contracts:** Types of Options Contracts-Call Option, Put Option; Mechanics of Buying & Selling Option Contracts; Payoff of Option Contracts; ITM, ATM, OTM.

**Option Valuation Model:** Binomial and Black-Scholes Option Pricing Model; Put-call Parity; Option Greeks (Delta, Gamma, Theta and Rho) and Implied Volatility;

## **Unit IV**

**Option Strategies and their Applications:** Spread Strategies (Call or Put Options) - Vertical Spread (Bull Spread, Bear Spread and Butterfly Spread); Condor Strategies (Long Condor and Short Condor); Straddle (Long Straddle and Short Straddle); Strangles (Long Strangles and Short Strangles); Strip and Strap Option Strategies. Status of Options Market in Indian Context.

## **Unit V**

**Financial Swaps Contracts:** Types of Financial Swaps- Interest rate swap and Currency Swap; Credit Derivatives; Credit Default Swaps (CDS).

Risk Management Applications of Swap Strategies: Managing Interest Rate Risk, Currency Risk and Credit Risk. Status of Swaps Market in Indian Context.

**Derivatives Growth:** Comparative Analysis of Derivatives Market in India and Abroad.

# **FIXED INCOME SECURITIES**

(3 Cr - 30 hrs)

## **Unit – I**

**Fixed Income Essentials:** Fixed Income Securities: Fixed Income Markets; Fixed Income Valuation and Asset Backed Securities; Basic Features of a Bond; Yield Measures; Structure of a Bonds Cash Flows; Bonds with Contingency Provisions (Callable Bonds, Putable Bonds, Convertible Bonds); Global Fixed-Income Markets; Primary and Secondary Bond Markets; Sovereign Bonds; Non-Sovereign Government, Quasi-Government and Supranational Bonds; Corporate Debt; Short-Term Funding Alternatives available to Banks; Bond Prices and the Time Value of Money; Prices and Yields; Maturity Structure of Interest Rates; and Yield Spreads.

## **Unit – II**

**Analysis of Risk:** Understanding Fixed Income Risk and Return; Interest Rate Risk on Fixed-Rate Bonds; Macaulay, Modified and Approximate Duration; Effective Duration; Properties of Bond Duration; Duration of a Bond Portfolio; Interest Rate Risk and the Investment Horizon; Fundamentals of Credit Analysis; Credit Risk; Capital Structure, Seniority Ranking, and Recovery Rates; Ratings Agencies, Credit Ratings, and Their Role in the Debt Markets; Traditional Credit Analysis; Credit Risk vs. return: Yield and Spreads; Credit Analysis Models; Measures of Credit Risk; Traditional Credit Models; Structural Models; Reduced Form Models; and Term Structure of Credit Spreads.

## **Unit – III**

**Asset Backed Securities:** Introduction to Asset Backed Securities; Benefits of Securitization for Economies and Financial Markets; Securitization Process; Residential Mortgage Loans; Residential Mortgage-Backed Securities; and Collateralized Debt Obligations.

## **Unit – IV**

**Valuation:** The Arbitrage-Free Valuation Framework; Meaning of Arbitrage-Free Valuation; Interest Rate Trees and Arbitrage-Free Valuation; Monte Carlo Method; Valuation and Analysis of Bonds with Embedded Options; Interest Rate Risk of Bonds with Embedded Options; and Valuation and Analysis of Convertible Bonds.

## **Unit – V**

**Term Structure Analysis:** The Term Structure and Interest Rate Dynamics; Spot Rates and Forward Rates; Swap Rate Curve; Traditional Theories of the Term Structure of Interest Rates; A Framework for Fixed-Income Portfolio Management; Managing Funds against a Bond Market Index; Managing Funds against Liabilities; Fixed Income Portfolio Management; Fixed-Income Strategies; Combination Strategies; Derivatives-Enabled Strategies; International Bond Investing; Relative Value Methodologies for Global Credit Bond Portfolio Management; Credit Relative-Value Analysis; Total Return Analysis; Primary Market Analysis; Liquidity and Trading Analysis; Spread Analysis; Structural Analysis; Credit Curve Analysis; and Credit Analysis.

# **MANAGING E-BUSINESS**

**(3 Cr - 30 hrs)**

## **Unit – I**

1. Introduction to Electronic Business: Managing businesses electronically, E-Business and E-Commerce, e-Transactions on the electronic media. Growth of E-Business, Impact of E-Business on Industries, Potential benefits of Electronic Business;
2. Components of E-Business technology, Role of websites and Internet in E-Business, Emerging technologies for E-Business solutions, Internet and World Wide Web as enablers, Impact of Electronic Commerce on Business Models, Variance of E-Commerce, Knowledge management in the e-Commerce Era
3. Electronic Commerce and role of Independent third parties: Introduction, Electronic Commerce Integrity and Security Assurance, Electronic Commerce systems reliability assurance, Risk Assessment Assurance, Third party assurance of web based electronic commerce (Trustee, Verisign, CA)
4. EDI, Electronic Commerce and the Internet, Data Transfer and standards, Financial EDI, EDI Systems and Internet

## **Unit – II**

5. Regulatory Environment: Introduction, Cryptography & Public key Infrastructure, Privacy Issues, Domain Name Issues, International Tax Issues, Electronic Agreements and Digital Signatures, IT Act, Cashless Economy. Integrators and Key Players
6. Internet Security Standards & PKI Standard Issues and Committees, Security Committees and Organizations, Security Protocols and languages, Messaging Protocols, Cryptography and Authentication – Messaging security issues; Encryption techniques; Key Management, Digital Signatures and Digital Certificates.

## **Unit – III**

7. Electronic Commerce Payment Mechanism, Electronic Wallets, SET Protocol, Payment Gateways, Security and Privacy Issues related to E-Commerce, On-line, Pre-paid and post-paid Electronic Payment Systems, Architectural Framework for E-Business Certificate Issuances, Certificate Authorities and Hierarchy
8. E-Commerce Applications e-Procurement, GeM, e-Governance, Web based marketing, Advertisements on the Net, Intelligent Messaging System, Developing Databases on the Web.

## **Unit – IV**

9. Implementing B-2-B E-Commerce, Supply-Chain Integration, Enterprise Application Integration, E-Commerce Value Chain, Internet Business Models, Internet Business Strategy, Implementation Strategies.
10. Search Engines and Internet Advertising, Building Virtual Communities, Building e-Alliances, Business Exchanges and Intermediaries, E-Business Strategies and Economies of E-Business.

