

**UNIVERSITY OF MADRAS**  
**B.Com. (GENERAL) DEGREE COURSE**  
**SYLLABUS WITH EFFECT FROM 2020-2021**

**BGE-CSA01**

**ALLIED-I: BUSINESS ECONOMICS**  
Common to BCom(CS)-II Sem., BCom(BM), BCom(MM),  
BCom(CA) & BCom(ISM)

**Inst.Hrs : 6**

**Credits : 5**

**YEAR: I**  
**SEMESTER: I**

**OBJECTIVES:**

- To facilitate the students to understand the concept of Communication.
- To Know the basic techniques of the modern forms of communication

**OUTCOME:**

- Students understand the concept of communication and familiarise with modern form of communication.

**UNIT-I**

Introduction to Economics – Wealth, Welfare and Scarcity Views on Economics - Positive and Normative Economics - Definition – Scope and Importance of Business Economics - Concepts: Production Possibility frontiers – Opportunity Cost – Accounting Profit and Economic Profit – Incremental and Marginal Concepts – Time and Discounting Principles – Concept of Efficiency- **Business Cycle:- Inflation, Depression, Recession, Recovery, Reflation and Deflation.**

**UNIT-II**

Demand and Supply Functions: - Meaning of Demand – Determinants and Distinctions of demand – Law of Demand – Elasticity of Demand – Demand Forecasting – Supply concept and Equilibrium

**UNIT-III**

Consumer Behaviour : Law of Diminishing Marginal utility – Equimarginal Utility – Indifference Curve – Definition, Properties and equilibrium.

**UNIT-IV**

Production: Law of Variable Proportion – Laws of Returns to Scale – Producer's equilibrium – Economies of Scale - Cost Classification – Break Even Analysis

**UNIT-V**

Product Pricing: Price and Output Determination under Perfect Competition, Monopoly – Discriminating monopoly – Monopolistic Competition – Oligopoly – Pricing objectives and Methods-

**RECOMMENDED TEXTS**

1. S.Shankaran, Business Economics - Margham Publications - Ch -17
2. P.L. Mehta, Managerial Economics – Analysis, Problems & Cases - Sultan Chand & Sons - New Delhi – 02.
3. Francis Cherunilam, Business Environment-Himalaya Publishing House -Mumbai–4.
4. Peter Mitchelson and Andrew Mann, Economics for Business - Thomas Nelson Australia -Can -004603454.
5. C.M.Chaudhary, Business Economics - RBSA Publishers - Jaipur - 03.
6. H.L.Ahuja, Business Economics–Micro & Macro-Sultan Chand & Sons-New Delhi.
7. T. Aryamala – Business Economics- Vijay Nicole Imprints Private Ltd.,

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**B.Com. (GENERAL) DEGREE COURSE**  
**SYLLABUS WITH EFFECT FROM 2020-2021**

**BGE-CSC01**

**CORE-I: FINANCIAL ACCOUNTING**

Common to BCom(A&F), BCom(CS), BCom(BM), BCom(MM),  
BCom(CA) & BCom(ISM)

**Inst.Hrs : 6**  
**Credits : 4**

**YEAR: I**  
**SEMESTER: I**

**OBJECTIVES:**

- To enable the students to understand the system of preparing financial statements for various types of organisation
- To familiarize the students with knowledge about financial reporting standards

**OUTCOMES:**

- The students will be able to analyse and prepare financial statement of different types of organisation
- The students will be aware of the various amendments in financial reporting

**UNIT I: Preparation of Financial Statement**

Final accounts of sole trading concern-Adjustments-Receipts and Payments-Income and expenditure-Balance sheet of non trading organisation

**UNIT II: Depreciation and Insurance Claims**

Depreciation Accounting: Depreciation- Meaning –Causes-Types-Straight Line Method-Written down value method- Concept of useful life under Companies Act 2015

Insurance Accounting: Insurance claims –Calculation of Claim amount-Average clause(Loss of stock only)

**UNIT III: Single entry system**

Meaning and Features of Single entry-Defects-Difference between single entry and double entry system-Methods of calculation of Profit-Statement of Affairs Method-Conversion Method

**UNIT IV: Rectification of Errors and Bank Reconciliation Statement**

Classification of Errors – Rectification of Errors – Preparation of Suspense a/c. Bank Reconciliation Statement – Need and preparation.

**UNIT V: Hire Purchase and Instalment System**

Hire Purchase System- Default and repossession-Hire purchase trading account  
Instalment System-Calculation of Profit.

**Note: Questions in Sec. A, B & C shall be in the proportion of 20:80 between Theory and Problems.**

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**TEXT BOOK:**

1. Lt Bhupinder – principles of Financial Accounting – CENGAGE, New Delhi
2. Raj Kumar Sah –Concepts Building Approach to Financial Accounting – CENGAGE, New Delhi
3. Gupta, R.L & Gupta,V.K, Advanced Accounting, Sulthan Chand & Sons, New Delhi

**REFERENCE BOOKS:**

1. Jain & Narang, Financial Accounting, Kalyani Publishers, NewDelhi
2. Reddy, T.S & Murthy,A. Financial Accounting, Margham Publications, Chennai
3. Shukla & Grewal, Advanced Accounting, S.Chand & Co. NewDelhi
4. Parthasarathy, S.& Jaffarulla, A. Financial Accounting, Kalyani Publishers, NewDelhi

**WEB REFERENCE:**

[www.accountingcoach.com](http://www.accountingcoach.com)  
[www.accountingstudyguide.com](http://www.accountingstudyguide.com)  
[www.futureaccountant.com](http://www.futureaccountant.com)  
[www.onlinelibrary.wiley.com](http://www.onlinelibrary.wiley.com)

**UNIVERSITY OF MADRAS**  
**B.Com. DEGREE COURSE IN INFORMATION SYSTEM MANAGEMENT**  
**SYLLABUS WITH EFFECT FROM 2020-2021**

**BSM-DSC02**

**CORE-II: INTERNET-OF-THINGS**

**Inst.Hrs : 6**  
**Credits : 4**

**YEAR: I**  
**SEMESTER: I**

**Course Objective**

To introduce the basics of Internet of Things.

**Learning Outcomes**

At the end of this course the students will be able to

- Understand the Internet's underlying architecture.
- Communicate through internet.
- Use basic internet tools.
- Use internet for getting information.
- Understand the security aspects of internet.

**Unit I** – Introduction to Internet: Definition of Internet – An internet time line – Send data across the internet through computer networks – Linking network with internet – Working principles of TCP/IP – Internet's software structure: Client / Server architecture – Domain name system – IP address – Routers.

**Unit II** - Connecting to the Internet: Connecting computers to the internet - Modems – Internet enabled TVs – Wi-fi – Satellite connections – Bluetooth – Hot spots – Communicating on the Internet: Emails – Email software – Mailing list – Case study: Blackberries Email – Spam folder – Chat and Instant messaging in internet.

**Unit III** - World Wide Web: Introduction to WWW - Basics about Web pages and its organization – Constructing websites – Working principles of web browsers – Basics of HTML – DHTML – XML – Hyperlinks – Structure of URLs - Forms – Web servers – Database access through web pages – Map sites.

**Unit IV-** Internet Tools: Telnet – FTP – Agents on the Internet – ActiveX and Java scripts – CGI scripting – Multimedia on the Internet: Audio streaming – RealPlayer – MP3 files – Podcasting – Virtual reality using VRML – Animations on Web – Online shopping – Virtual Private Networks (VPNs).

**Unit V** – Protection on Internet: Firewalls: Corporate and Personal – Proxy Servers – Hacking – Email Viruses – Protection on wireless networks – Worms – Cookies – Spyware and Phishing – Introduction to Cryptography: Working principles – Digital Signatures.

**Text Book:**

How the Internet Works, Preston Gralla, Pearson Education, Eighth Edition, 2006.

**Reference Books:**

1. Internet for Everyone, Alexis Leon, S. Chand (G/L) & Company Ltd; Second Edition 2012.

**Web References:**

1. <https://fcit.usf.edu/internet/chap1/chap1.htm>
2. <https://nptel.ac.in/courses/106/105/106105166/>.
3. <https://www.coursera.org/learn/raspberry-pi-platform>
4. [https://www.tutorialspoint.com/internet\\_of\\_things/index.htm](https://www.tutorialspoint.com/internet_of_things/index.htm)

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**B.Com. DEGREE COURSE IN COMPUTER APPLICATION**  
**SYLLABUS WITH EFFECT FROM 2020-2021**

**BCN-CSC08**

**CORE-VIII: OBJECT ORIENTED PROGRAMMING USING C ++**

**THEORY AND PRACTICAL**

Common to BCom(ISM)

**Inst.Hrs : 6**

**Credits : 4**

**YEAR: II**

**SEMESTER: III**

**Course Objectives**

- To expose the students to basics of Object Oriented Programming concepts.
- To develop the programming skills using object oriented concepts.
- Able to apply the OOPs concepts in real life problems.

**UNIT I:** Principles of object oriented programming, object-oriented programming paradigm. Applications of OOPs. OOPs concepts – OOPs Languages. Models:-Class Model-State Model and Interaction Model.

**UNIT II:** Introduction to C++ - Tokens, Keywords-Identifiers-Variables-Operators-Manipulators-Expressions-Control Structures.

**UNIT III:** Functions - Main Function - Function Prototyping - Inline Functions - Friend and Virtual Functions-Parameters Passing in Functions-Values Return by Functions, file concepts.

**UNIT IV:** Classes and Objects; Constructors and Destructors; and Operator Overloading and Type Conversions - Type of Constructors - Function overloading.

**UNIT V:** Inheritance: Single Inheritance - Multilevel Inheritance - Multiple Inheritance - Hierarchical Inheritance - Hybrid Inheritance. Virtual Functions and Polymorphism; Managing Console I/O operations.

**RECOMMENDED BOOKS**

1. R.S. Bichkar – Programming with C – University Press , Hyderabad
2. K.Sasi Kala Rani - Programming in C - Vijay Nicole Imprint Private Limited,Chennai

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**Reference Books:**

1. E. Balagurusamy, Object Oriented Programming with C++, Tata McGraw-Hill Publishing Company Ltd, 6<sup>th</sup> edition 2013.
2. H. Schildt. *C++ the Complete reference*. T M H.1998.

**C++ PRACTICALS**

1. Simple programs like Area of a circle and square and Temperature conversion, to revise C++ fundamentals
2. Constructor and constructor overloading
3. Friend function
4. Inline Function
5. Function and Function prototyping
6. Function overloading
7. Operator overloading
8. Inheritance, multiple inheritances
9. Virtual Functions
10. File program

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**B.Com. (GENERAL) DEGREE COURSE**  
**SYLLABUS WITH EFFECT FROM 2020-2021**

**BGE-CSA02**

**ALLIED-II: INDIAN ECONOMY**  
Common to BCom(BM), BCom(MM), B.Com(Co-op),  
BCom(CA) & BCom(ISM)

**Inst.Hrs : 6**  
**Credits : 5**

**YEAR: I**  
**SEMESTER: II**

**Objectives:**

- To have the fundamental knowledge of Economic Developments.
- To teach the Economic problems and five year Plans.

**Outcomes:**

- After completion of the syllabus students well versed with the features of Indian economy and known the five year plan

**UNIT I: Economic Growth and Economic Development-** Transition on Indian Economy— Indian Economy from 1950 .- **Indicators of economic development- National Income- Basic Concepts and computation of national income.**

**UNIT II: Major problems of Indian Economy-** Human Development Index. Present Scenarios of population, unemployment, Poverty and inequality. Demographic trends in Population. Measures to control the population-Foreign trade

**UNIT III: Agriculture:** Contribution to economic development- Green Revolution- Organic farming- Food policy and Public distribution system.

**UNIT IV: Industry-** Role of industries in economic development-Large scale industries and small scale industries- New Economic Policy 1991- Industrial development before and after globalization in India.

**UNIT V: Five year plans in India-** Achievement and strategy and failures- Nidhi Aayog.

**RECOMMENDED TEXTS**

1. I.C. Dingra, Indian Economy
2. Ruddar Datt & K.P.M. Sundharam, Indian Economy - S.Chand & Sons - New Delhi.
3. K.N. Agarwal, Indian Economy – Problem of Development of Planning - Wishwa Prakashan - New Age of International Ltd.
4. S.K.Misra & V.K.Puri, Indian Economy – Its Development - Himalaya Publishing House - Mumbai.
5. T Aryamala, Indian Economy – Vijay Nicole Imprints Private Ltd.,



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**SYLLABUS WITH EFFECT FROM 2020-2021**

**BGE-CSC03**

**CORE-III: ADVANCED FINANCIAL ACCOUNTING**

Common to BCom(A&F), BCom(CS), BCom(CA) & BCom(ISM)

**Inst.Hrs : 6**

**Credits : 4**

**YEAR: I**

**SEMESTER: II**

**OBJECTIVES**

To enable the students to understand the system of preparing financial statements for various types of organisation

- To familiarize the students with knowledge about financial reporting standards

**OUTCOME:**

- The students will be able to understand the preparation of financial statements for business units other than corporate undertaking and their utility.

**Unit I: Branch Accounts**

Dependent Branches - Stock and Debtors system – Distinction between Wholesale Profit and Retail Profit – Independent Branches (Foreign Branches excluded)

**Unit II: Departmental Accounts**

Basis of Allocation of Expenses – Calculation of Profit - Inter-departmental Transfer at cost or Selling Price.

**Unit III: Partnership Accounts**

Admission of a Partner – Retirement of a Partner – Death of a Partner.

**Unit IV: Partnership Accounts**

Dissolution of a Partnership Firm – Insolvency of a Partner – Insolvency of all Partners- Piecemeal Distribution of cash in case of Liquidation of Partnership Firm.

**Unit V: Accounting Standards for financial reporting**

Objectives and uses of financial statements for users-Role of accounting standards-Development of accounting standards in India- Requirements of international accounting standards - Role of developing IFRS- IFRS adoption or convergence in India- Implementation plan in India- Ind AS-Difference between Ind AS and IFRS.

**Note:** Questions in Sec. A, B & C shall be in the proportion of 20:80 between Theory and Problems.

**TEXT BOOK:**

1. Lt Bhupinder – principles of Financial Accounting – CENGAGE, New Delhi
2. Raj Kumar Sah –Concepts Building Approach to Financial Accounting - CENGAGE, New Delhi
3. Gupta, R. L & Gupta, V. K, Advanced Accounting, Sulthan Chand & Sons, New Delhi.
4. Jain & Narang, Financial Accounting, Kalyani Publishers, New Delhi.

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**SUGGESTED READINGS:**

1. Reddy, T. S & Murthy, A. Financial Accounting, Margham Publications, Chennai.
2. Shukla & Grewal, Advanced Accounting, S. Chand & Co., New Delhi.
3. Tulsian P.C.-Financial Accounting.
4. Parthasarathy, S .& Jaffarulla, A. Financial Accounting, Kalyani Publishers, NewDelhi

**WEB REFERENCE:**

[www.accountingcoach.com](http://www.accountingcoach.com)

[www.accountingstudyguide.com](http://www.accountingstudyguide.com)

[www.futureaccountant.com](http://www.futureaccountant.com)

[www.onlinelibrary.wiley.com](http://www.onlinelibrary.wiley.com)

**UNIVERSITY OF MADRAS**  
**B.Com. DEGREE COURSE IN BANK MANAGEMENT**  
**SYLLABUS WITH EFFECT FROM 2020-2021**

**BBM-CSE2B**

**ELECTIVE-II(B): COMPUTERIZED ACCOUNTING**

Common to BCom(MM) & BCom(ISM)-III-Sem. as Core.

**Inst.Hrs : 6**

**Credits : Elective 5 / Core 4**

**YEAR: III**

**SEMESTER: VI**

**COURSE OBJECTIVE**

1. To provide basic knowledge of computerized accounting to deserving students under self – learning mode
2. To know the preparation of budget and vouchers
3. To process purchase orders, sales order and salary payment
4. To prepare the final accounts with GST

**OUTCOME**

1. The students will be able To prepare the final accounts with GST

**UNIT I: Interface and Company Management:** Introduction to Tally ERP9 - Creating a Company - Altering and Deleting Company – Data Security: Security Control Setup - User Security Control, Multi Language, Export, Import, Backup and Restore: Export and Import Formats - Data Backup and Restore - Masters - Ledgers: Understanding Ledgers - Creating Ledgers - Creating Multiple Ledgers - Altering and Deleting Ledgers – Groups: Creating Groups - Altering and Deleting Groups - Bill wise Debtors and Creditors Ledgers: Configuring Bill wise Details

**UNIT II: Default Vouchers:** Payment Voucher - Receipt Voucher - Contra Voucher - Journal Voucher, Day Book: Day Book Reports - Altering and Deleting Transactions, Cheque Printing: CTS Cheque Printing System, Masters : Inventory: Understanding Inventory - Integrating Accounts and Inventory - Stock Group - Go down and Locations - Stock Category - Units of Measure - Stock Items - Manual Stock Valuation without Inventory

**UNIT III: Purchase Order Processing:** Purchase Order Process - Purchase Order Voucher - Receipt Note (Inventory) - Rejection-Out Voucher, Sales Order Processing: Sales Order Process - Sales Order Voucher - Delivery Note (Inventory) - Rejection-IN Voucher , Debit and Credit Notes, Bank Reconciliation, Manufacturing Vouchers: Bills of Materials - Job Costing, Tax Deducted at Source (TDS): Understanding TDS - Creating TDS Masters - TDS Payment - Tax Reports and Tax Forms, Payroll Accounting: Understanding Payroll - Pay Heads and Categories - Employee Details and Salary Details - Attendance Entries - Salary Payment – Pay sheet and Pay Slips

**UNIT IV: Goods and Services Tax (GST):** Activating Tally in GST - Setting Up GST (Company Level, Ledger Level or Inventory Level) - GST Taxes & Invoices - SGST, CGST & IGST - Creating GST Masters in Tally, Purchase Voucher with GST: Updating GST Number for Suppliers -Intra-State Purchase Entry in GST (SGST + CGST) - Inter-State Purchase Entry in GST (IGST) - GST Purchase Entry for Unregistered Dealer in Tally - Reverse Charge Mechanism Entry for GST in Tally, Sales Voucher with GST: Updating GST Number for Suppliers - Intra-State Sales Entry in GST (SGST + CGST) - Inter-State Sales Entry in GST

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(IGST) - Printing GST Sales Invoice from Tally ERP9 Software, GST Reports and Returns: GSTR 1 in Tally - GSTR 1 Return Filing

**UNIT V: Interest Calculations (Auto Mode):** Activating Interest Calculations, Point of Sales, Budgets and Controls: Budget Masters and Configurations - Budget Reporting and Analysis, Cost Centers and Cost Categories: Cost Centers - Profit Centers, Purchase and Sales Reporting: Analyzing Purchase and Sales Register - Analyzing Debit and Credit Note - Overdue Payables and Receivables - Outstanding Reports and Printing, Stock Analysis and Reports: Stock Registers - Stock Valuation - Stock Transfer Report - Negative Stock Report - Record Physical Stock and Shortage - Stock Entry without Perpetual Inventory, Financial Reports: Trial Balance - Profit and Loss Account - Balance Sheet - Working Capital - Cash Flow and Fund Flow Statements, Printing Reports: Sales Invoice - Printing Payment and Receipt Vouchers - Printing Various Other Reports - Miscellaneous: Inserting Vouchers - Duplicating Entries - Split Company Data - Merge Tally Companies, Shortcut Keys

**NOTE: 100% practical**

**Suggested Readings**

1. Nadhani A K, (2016), Implementing Tally, BPB Publications
2. Rizwan Ahmed, (2016), Tally ERP 9, Margham Publications, Chennai
3. Nandhani, (2015), Computerized Accounting under Tally, Implementing Tally, BPB publication
4. Namrata Agrawal, (2008), Tally 9", Dreamtech Publishers
5. Tally Software Package Manual

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**B.Com. DEGREE COURSE IN COMPUTER APPLICATION**  
**SYLLABUS WITH EFFECT FROM 2020-2021**

**BCN-CSC12**

**CORE-XII: JAVA PROGRAMMING - THEORY & PRACTICAL**

Common to BCom(ISM)

**Inst.Hrs : 5**

**Credits : 4**

**YEAR: II**

**SEMESTER: IV**

**Course Objectives**

- To learn the basics and advanced concepts of Java programming.
- To learn the basics of user interfaces components using Java.
- To apply and develop the real time applications using Java programming.

**UNIT – I**

Introduction to Java-Features of Java-Basic Concepts of Object Oriented Programming-Java Tokens-Java Statements-Constants-Variables-Data Types- Type Casting-Operators-Expressions- Control Statements: Branching and Looping Statements

**UNIT-II**

Classes, Objects and Methods-Constructors-Methods Overloading-Inheritance-Overriding Methods-Finalizer and Abstract Methods-Visibility Control –Arrays, Strings and Vectors-String Buffer Class

**UNIT – III**

Interfaces-Packages-Creating Packages-Accessing a Package-Multithreaded Programming- Creating Threads- Stopping and Blocking a Thread-Life Cycle of a Thread-Using Thread Methods-Thread Priority

**UNIT – IV**

Managing Errors and Exceptions-Syntax of Exception Handling Code-Using Finally Statement- Throwing Our Own Exceptions-Applet Programming-Applet Life Cycle-Graphics Programming

**UNIT – V**

Managing Input /Output Files: Concept of Streams-Stream Classes-Byte Stream Classes- Character Stream Classes – Using Streams-Using the File Class-Creation of Files-Random Access Files-Other Stream Classes

**RECOMMENDED BOOKS**

1. Sagayaraj , Denis, Karthik, Gajalakshmi – JAVA Programming - University Press , Hyderabad

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**Reference Books**

1. E. Balagurusamy, 2004, Programming with JAVA, 2<sup>nd</sup> Edition, Tata McGraw-Hill Publishing Co.Ltd
2. Muthu C, Programming with Java, Vijay Nicole Imprints, Chennai
3. Cay S. Horstmann, Gray Cornell. *Core java 2 Volume I*. Fundamentals, 5<sup>th</sup> Edn. PHI, 2000.
4. P. Naughton and H. Schildt. *Java2 (The Complete Reference)*. Third Edition, TMH 1999.
5. K. Arnold and J. Gosling. *The Java Programming Language*. Second Edition, Addison Wesley, 1996.

**JAVA PROGRAMMING PRACTICALS**

1. Substring removal from a string. Using String Buffer Class.
2. Determining the Perimeter and Area of a Triangle. Using Stream Class.
3. Determining the order of numbers generated randomly using Random class.
4. Usage of Calendar Class and manipulation.
5. String Manipulation using char array.
6. Usage of Vector Classes.
7. Implementing Tread based application and Exception Handling.
8. Creating scientific calculator
9. Working with Frames and Various controls.
10. Working with Applet- form designing
11. Text files (copy, display, counting characters, words and lines).
12. Data file creating and processing for electricity billing.

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**B.Com. (GENERAL) DEGREE COURSE**  
**SYLLABUS WITH EFFECT FROM 2020-2021**

**BGE-CSA3A**

**ALLIED-III(A): BUSINESS STATISTICS**

Common to BCom(A&F), BCom(CS), BCom(BM), BCom(MM),  
B.Com(Co-op), BCom(CA) & BCom(ISM)

**Inst.Hrs : 6**

**Credits : 5**

**YEAR: II**  
**SEMESTER: III**

**OBJECTIVES**

To Facilitate Understanding Relevance and Need Of Statistics in Current Scenario

- To Customize the Importance of Business Statistics for the Commerce Students

**UNIT-I Introduction**

Meaning and Definition of Statistics- Collection and Tabulation of Statistical Data- Presentation of Statistical Data-Graphs and Diagrams

**UNIT-II Measures of Central Tendency and Measures of Variation**

Measures of Central Tendency- Arithmetic Mean, Median, Mode, Harmonic Mean and Geometric Mean. Measures of Variation- Standard Deviation -Mean Deviation- Quartile Deviation-Skewness and Kurtosis- Lorenz Curve

**UNIT-III Correlation and Regression Analysis**

Simple Correlation-Scatter Diagram- Karl Pearson's Correlation- Spearman's Rank Correlation- Regression- Meaning-Linear Regression.

**UNIT- IV Time Series**

Analysis of Time Series-Causes of Variation in Time Series Data -Components of Time Series- Additive and Multiplicative Models- Determination of Trend By Semi Average, Moving Average and Least Square( Linear Second Degree And Exponential) Methods- Computation of Seasonal Indices By Simple Average, Ratio to Moving Average, Ratio to Trend and Link Relative Methods

**UNIT-V Index Numbers**

Meaning and Types of Index Numbers-Problems in Construction of Index Numbers- Methods of Construction of Price and Quantity Indices- Test of Adequacy- Errors in Index Numbers- Chain Base Index Numbers- Base Shifting -Splicing -Deflation -Customer Price Index and Its Uses- Statistical Quality Control

**SUGGESTED READINGS**

1. Dhingra IC & MP Gupta, Lectures In Business Statistics, Sultan chand and Sons, New Delhi 2009
2. Gupta SP and Archana Agarwal, Business Statistics (Statistical Methods) Sultan chand and Sons, New Delhi, 9th Edition 2013
3. Gupta SC, Fundamentals of Statistics, Himalaya Publishing House
4. Richard Levin and David Rubin, Statistics for Management, Prentice Hall Of India, New Delhi, 2011,7th Edition
5. Sharma J K,Fundamentals of Business Statistics, Second Edition, Vikas Publishing House Private Limited,2013
6. Siegel, Andrew, Practical Business Statistics, Irwin Mcgraw Hill International Edition 4th
7. Rajagopalan SP and Sattanathan R B Business Statistics and Operations Research, Vijay Nicole Imprint Private Limited, Chennai

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**SYLLABUS WITH EFFECT FROM 2020-2021**

**BGE-CSC07**

**CORE-VII: BANKING THEORY LAW AND PRACTICE**  
Common to BCom(A&F), BCom(BM), BCom(MM) & BCom(ISM)

**Inst.Hrs : 5**  
**Credits : 4**

**YEAR: II**  
**SEMESTER: III**

**Objectives:**

1. To facilitate the understanding of the origin and the growth of the Indian Banking System
2. To understand the modern day Developments in Indian Banking Sector.

**Out Comes:**

- After completion of this subject students understand the growth of Indian Banking Systems and their Modern Day Development.

**UNIT-I : Introduction to Banking**

History of Banking- Components of Indian banking -Indian Banking System-Phases of development-Banking structure in India-Payment banks and small banks-Commercial Banking-Definition-Classification of banks. Banking System- Universal banking-Commercial Banking-functions-Role of Banks in Economic Development. Central Banking-Definition –Need-Principles- Central Banking Vs Commercial banking-Functions of Central bank.

**UNIT-II: RBI**

Establishment-objective-Legal framework-Functions-SBI-Origin and History-Establishment-Indian subsidiaries-Foreign subsidiaries-Non-Banking-Subsidiaries-Personal banking-International banking-Trade Financing-Correspondent banking.Co-operative banks-Meaning and definition-Features-Co-operative banks vsCommercial banks-Structure.-**NBFC-Role of NBFC-RBI Regulations-Financial sector reforms-Sukhmoy committee 1985-Narasimham committee I and II-Prudential norms: capital adequacy norms-classification of assets and provisioning.**

**UNIT-III: E-Banking**

Meaning-Services-e-bankingandFinancialservices-Initiatives-Opportunities-Internet banking-Meaning-InternetbankingVsTraditionalbanking-Services-Drawbacks-Frauds in Internet banking. Mobile banking–**Anywhere Banking-Any Time Banking-** Electronic MobileWallets. ATM-Evolution -Concept-Features - Types-. Electronicmoney-Meaning-Categories-Meritsofe-money-ElectronicFunds Transfer (EFT)system - Meaning- Steps–Benefits-Monetary policies- final sector reforms- sakmoy chakrevarthy committee 1985- Narasiman Committee I & II-prudential norms capital adequacy norms- classification of assets & provisionary meaning-Structure of Interest rates (short and long term)-impacts on saving and borrowings.

**UNIT IV: Bank Account**

Opening – Types of Accounts-FDR-Steps in opening Account-Saving vs Current Account-‘Donatio Mortis Causa’ - Passbook-Bank Customer Relationship-Special Types of currents-KYC norms. Bank Lending –Lending Sources-Bank Lending Principles-Forms of lending-Loan evaluation process-securities of lending-Factors influencing bank lending – Negotiable



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Instruments –Meaning –Characteristics-Types. Crossing –Definition –Objectives-Crossing and negotiability-Consequences of Crossing.

**UNIT-V: Endorsement**

Meaning-Components-Kinds of Endorsements-Cheques payable to fictitious person-Endorsement by legal representative –Negotiation bank-effect of endorsement-Rules regarding endorsement.Paying banker-Banker's duty-Dishonoring of Cheques-Discharge of paying banks-Payments of a crossed cheque payment. Collecting bankers-Statutory protection under section 85-Refusal of cheques Payment. Collecting Banker-Statutory protection under section 131-Collecting bankers' duty –RBI instruction –Paying Banker Vs Collecting Banker- Customer grievances-Grievance redressal –Banking Ombudsman.

**TEXT BOOKS**

1. Michael W. Brandi – Money, Banking, Financial Markets and Institutions –Cengage , New Delhi
2. Gurusamy S, Banking Theory : Law and Practice, Vijay Nicole Publication, 2015, Chennai

**SUGGESTED READINGS**

1. Clifford Gomez, Banking and finance, Theory, Law and practice, Jain Book Agency, 2010 Mumbai
2. Gupta, R K Banking Law and Practice, Jain Book Agency, 2001, New Delhi.
3. Sundaram and Varshney, Banking Theory Law and Practice, Sultan Chand Co, 2010, New Delhi.
4. Maheswari, S.N. Banking Theory Law and Practice, Kalyani Publications, 2011, Mumbai.
5. Santhanam.B, Banking Theory Law and Practice, Margam Publications.
6. Nirmala Prasad, Banking and Financial Services, Himalaya Publications.

**E-RESOURCES**

[www.lawcommissionofindia.nic.in](http://www.lawcommissionofindia.nic.in)  
[www.rbi.org](http://www.rbi.org)  
[www.bankingombudsman.org](http://www.bankingombudsman.org)

**UNIVERSITY OF MADRAS**  
**B.Com. DEGREE COURSE IN INFORMATION SYSTEM MANAGEMENT**  
**SYLLABUS WITH EFFECT FROM 2020-2021**

**BSM-DSC06**

**CORE-VI: DATA STRUCTURE**

**Inst.Hrs : 5**  
**Credits : 4**

**YEAR: I**  
**SEMESTER: II**

**Course Objectives**

- To learn linear data structures-lists, stacks, queues
- To study Tree and Graph structures

**OUTCOMES:**

- Implement abstract data types for linear data structures.
- Apply the different linear and non linear data structures to problem solutions.

**UNIT I**

Introduction: Data structure – data types – types of data types - . Arrays: Representation of Arrays – One dimension and 2 dimension – operations

**UNIT II**

Stacks and Queues. Fundamentals - operations - Evaluation of Expression Infix to Postfix Conversion - Multiple Stacks and Queues

**UNIT III**

Linked List: Singly Linked List - Linked Stacks and Queues - Polynomial Addition - Doubly Linked List and Dynamic - Storage Management - Garbage Collection and Compaction.

**UNIT IV**

Trees: Basic Terminology - Binary Trees - Binary Tree Representations - Binary Trees - Traversal - Threaded Binary Trees

**UNIT V**

Graphs: Terminology and Representations – Traversals – BFS – DFS, Spanning Trees – Minimum Spanning tree

**TEXT BOOK**

1. Ellis Horowitz, Sartaj Shani, Data and File Structures Galgotia Publication.

**REFERENCE BOOKS**

- 1 Ellis Horowitz, Sartaj Shani, Sanguthevar Rajasekaran, “Computer Algorithms Galgotia Publicatio
- 2 Aho, Hopcroft and Ullman, “*Data Structures and Algorithms*”, Pearson Education 2003.

**WEB REFERENCES:**

- NPTEL & MOOC courses titled Data Structures
- <https://nptel.ac.in/courses/106106127/>

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**SYLLABUS WITH EFFECT FROM 2020-2021**

**BCN-CSC04**

**CORE-IV: PYTHON PROGRAMMING THEORY AND PRACTICAL**

Common to BCom(ISM)

**Inst.Hrs : 6**

**Credits : 4**

**YEAR: I**

**SEMESTER: II**

**Course Objectives**

- To introduce the basic features of python programming and impart skills in an Industry standard programming language
- Understand fundamental programming concepts of Python programming and its Libraries
- Create advanced programming features in Python to solve industry standard problems

**UNIT - I**

Computer systems – Python Programming Language Computational Thinking – Python Data Types: Expressions, Operator, Variables, and Assignments – Strings – Lists – Objects & Classes – Python standard library.

**UNIT - II**

Imperative programming: Python modules – Built-in-function: print() function –eval() function – user-defined function & assignments -parameter passing.

**UNIT - III**

Text Data, Files & Exceptions: Strings, revisited – formatted output – files – errors & Exceptions – Execution control Structures: decision control & the IF statement

**UNIT - IV**

For LOOP & Iteration Patterns – two-dimensional list- while loop – more loop patterns – additional iteration control statements – Container and Randomness: Dictionaries – other built-in container types – character encodings & strings – module random.

**UNIT - V**

Namespaces – encapsulation in functions – global vs local namespaces exceptional flow control – modules as namespaces.

**RECOMMENDED BOOKS**

1. Michael Dawson – Python Programming for The Absolute Beginner –Cengage ,New Delhi
2. Kenneth A. Lambert – Fundamentals of Python First Programs - Cengage ,New Delhi
3. Ch Satyanarayana, M Radhika Mani, BN Jagadesh - Python Programming- Cengage, New Delhi

**Reference Books**

1. Ljubomir Periodic, “Introduction to Computing Using Python: An Application Development Focus”, John Wiley & Sons,2012
2. Shymala Devi, Python Programming, Vijay Nicole Imprints, Chennai
3. Sheetal Taneja & Naveen kumar, Python Programming a Modular approach – A Modular approach with Graphics, Database, Mobile and Web applications, Pearson, 2017.
4. Martin C. Brown, Python: The Complete Reference, Osborne/McHraw Hill, 2001.
5. Wesley J. Chun, “Core Python Programming”, Pearson Education, Second Edition, 2007.

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**WEB REFERENCES**

- NPTEL & MOOC courses titled Python programming
- [http://spoken-tutorial.org/tutorial-search/?search\\_foss=Python&search\\_language=English](http://spoken-tutorial.org/tutorial-search/?search_foss=Python&search_language=English)
- <http://docs.python.org/3/tutorial/index.html>
- <http://interactivepython.org/courselib/static/pythonds>

**PYTHON PROGRAMMING PRACTICALS**

**Objectives:**

- To implement the python programming features in practical applications.
- To write, test, and debug simple Python programs.
- To implement Python programs with conditionals and loops.
- Use functions for structuring Python programs.
- Represent compound data using Python lists, tuples, dictionaries and modules.

**LIST OF EXERCISES:**

1. Program to convert the given temperature from Fahrenheit to Celsius and vice versa depending upon user's choice.
2. Program to calculate total marks, percentage and grade of a student. Marks obtained in each of the five subjects are to be input by user. Assign grades according to the following criteria:  
Grade A: Percentage  $\geq 80$       Grade B: Percentage  $\geq 70$  and  $< 80$       Grade C: Percentage  $\geq 60$  and  $< 70$       Grade D: Percentage  $\geq 40$  and  $< 60$       Grade E: Percentage  $< 40$
3. Program, using user-defined function to find the area of rectangle, square, circle and triangle by accepting suitable input parameters from user.
4. Program to display the first n terms of Fibonacci series.
5. Program to find factorial of the given number.
6. Write a Python program to count the number of even and odd numbers from N numbers.
7. Python function that accepts a string and calculate the number of upper case letters and lower case letters.
8. Python program to reverse a given string and check whether the give string palindrome or not.
9. Write a program to find sum of all items in a dictionary.
10. Write a Python program to construct the following pattern, using a nested loop 1  
22  
333  
4444  
55555  
666666  
7777777  
88888888  
999999999
11. Simple analysis listing

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**SYLLABUS WITH EFFECT FROM 2020-2021**

**BGE-CSA4A**

**ALLIED-IV(A): ELEMENTS OF OPERATIONS RESEARCH**

Common to BCom(A&F), BCom(MM), BCom(CA) & BCom(ISM)

**Inst.Hrs : 6**

**Credits : 5**

**YEAR: II**

**SEMESTER: IV**

**OBJECTIVES**

- To Facilitate this Understanding of the Concept of Operations Research
- To Help the Students to Understand the Various Techniques of Solving Problems

**OUT COME:**

- Understanding of the Concept of Operations Research and to Help the Students to Understand the Various Techniques of Solving Problems

**UNIT I : Introduction**

Operations Research- Meaning-Definition - Origin and History- Characteristic Features – Need-Scope –Steps- Techniques- Application- Limitations

**UNIT II : Linear Programming Problem Lpp**

Meaning- Requirements- Assumptions- Applications- Formulating Lpp –Advantages- Limitations Formulating LP Model (Simple Problems Only)

**UNIT III: Methods Of Lpp**

Obtaining Optimal Solution for Linear Programming Problem (LPP)-Graphical Method - Problems --Simplex Method for Type of LPP and for Slack Variable Case -Maximization Function -Minimization Function (Simple Problem Only)

**UNIT IV : Transportation Problems**

Meaning –(Initial Basic Feasible Solution )Assumptions -Degenerate Solution -North -West Corner Method- Least Cost Method -Vogels Approximation Method -Assignment Problems- Features -Transportation Problem Vs Assignment Problem -Hungarian Method (Simple Problems Only)

**UNIT V: Game Theory**

Meaning- Types of Games- Basic Assumptions- Finding Value of Game for Pure Strategy - Mixed Strategy -Indeterminate Matrix and Average Method -Graphical Method -Pure Strategy- Saddle Point Payoff Matrix Value of Game (Simple Problems Only)

**Recommended Texts**

1. M.Sreenivasa Reddy – Operations Research – CENGAGE , New Delhi
2. S.Gurusamy–Elements of Operations Research–Vijay Nicole Imprints private Limited, Chennai

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**B.Com. (GENERAL) DEGREE COURSE**  
**SYLLABUS WITH EFFECT FROM 2020-2021**

**SUGGESTED READINGS**

1. Agarwal NP and Sonia Agarwal, Operations Research and Quantitative Techniques, RBS A Publishers, New Delhi ,2009
2. Anand Sharma, Operations Research, Himalayan Publishing House, 2014 ,Mumbai
3. Gupta Pk And Gupta SP Quantitative Techniques and Operations Research, Sultan Chand and Sons, 2014, New Delhi
4. Kapoor V.K, Operations Research Techniques For Management,Sultan Chand And Sons, 2012 New Delhi
5. Kanti Swarup,P.K. Gupta Man Mohan ,operation research, Jain book agency, 2014, New Delhi
6. Sarangi, SK Applied operations research and Quantitative methods, Himalayan publishing house 2014, Mumbai.

**E- SOURCES:**

<http://www.learnaboutor.co.uk/>  
<http://www.theorsociety.com/>  
[www.orcomplete.com/](http://www.orcomplete.com/)  
<http://www.orsi.in/>

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**SYLLABUS WITH EFFECT FROM 2020-2021**

**BGE-CSC04**

**CORE-IV: PRINCIPLES OF MANAGEMENT**  
Common to BCom(A&F), BCom(BM), BCom(CA)-IV Sem  
& BCom(ISM)-IV Sem.

**Inst.Hrs : 6**  
**Credits : 4**

**YEAR: I**  
**SEMESTER: II**

**OBJECTIVES**

- To make the students to understand the basic concepts of management.
- To prepare the students to know about the significance of the management in Business.

**OUTCOME:**

- On the completion of syllabus students will understand the basic concepts and significance of management in business.

**Unit I: Introduction**

Definition – Importance – Nature and Scope of Management – Process of Management - Role and functions of Managers - Levels of Management Scientific Management Contributions to Management by different Schools of thought.

**Unit II: Planning**

Nature – Importance -Types of Planning - Steps in planning - Objectives of Planning – Policies - Decision making Process-Types of Decisions. HRM- Meaning, -Nature and scope of HRM.

**Unit III: Organization**

Meaning and Types of organizations - Principles – Formal and Informal organization - Organisation Structure – Span of Control – Departmentalisation – Basis - Meaning and Importance of Departmentalisation. Policies - Meaning and Types – Procedures - Forecasting.

**Unit IV: Authority and Responsibility**

Authority – Definition – Sources – Limitations – Difference between Authority and Responsibility – Delegation of Authority – Meaning – Principles and importance – Centralisation Vs Decentralisation- Leadership & Communication

**Unit V: Direction Co-ordination & Control**

Direction – Nature - Purpose. Co-ordination – Need – Types and Techniques – Requisites for Excellent Co-ordination. Controlling – Meaning – Importance – Control Process.

**TEXT BOOK:**

1. N.V..S.Raju.- Fundamentals of Management - CENGAGE ,New Delhi.
2. James Campbell Quick, Dbra L.nelson, Preetam Khandelwal - CENGAGE ,New Delhi.
3. Gupta,C.B.Management Theory&Practice,SulthanChand&Sons,New Delhi.
4. Prasad,L.M.Principles&PracticeofManagement,SultanChand&Sons,New Delhi.

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**SYLLABUS WITH EFFECT FROM 2020-2021**

**REFERENCE BOOKS:**

1. Tripathi, P.C. & Reddy, P.N. Principles of Management, Tata McGraw Hill, New Delhi.
2. Wehrich and Koontz, Management - A Global Perspective.
3. Premavathy N, Principles of Management, Sri Vishnu Publications, Chennai.
4. Jayasankar, J. Business Management, Margham Publication, Chennai.
5. Sundar, K. Principles of Management, Vijay Nicole Imprints Pvt. Ltd., Chennai

**WEB RESOURCE:**

1. [www.wisdomjobs.com](http://www.wisdomjobs.com)
2. [www.aima.in](http://www.aima.in)
3. [www.clep.collegeboard.org](http://www.clep.collegeboard.org)



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**SYLLABUS WITH EFFECT FROM 2020-2021**

**BGE-CSC11**

**CORE-XI: FINANCIAL SERVICES**

Common to BCom(A&F) as VI Sem.Elective, BCom(BM),  
BCom(CA)-VI Sem. & BCom(ISM)

**Inst.Hrs : 5**

**Credits : 4**

**YEAR: II**  
**SEMESTER: IV**

**OBJECTIVES:**

- To enable the students to understand the world of financial services.
- To facilitate the understanding of the various Financial Services.

**OUTCOME:**

- On the completion of modules, the students will understand the various financial services.

**UNIT I: Introduction**

Financial Services - Concept - Objectives - Functions - Characteristics - Financial Services Market - Concept - Constituents - Growth of Financial Services in India - Financial Services Sector Problems - Financial Services Environment - The Forces - Players in Financial Markets

**UNIT II: Merchant Banking and Public Issue Management**

Definition - Functions - Merchant Bankers Code of Conduct - Public Issue Management - Concept - Functions - Categories of Securities Issue - Mechanics of Public Issue Management - Issue Manager - Role of issue Manager - Marketing of Issue - New Issues Market Vs Secondary Market.

**UNIT III: Money Market and Stock Exchange**

Characteristics - Functions - Indian Capital Market - Constituents of Indian Capital Market - New Financial Institutions and Instruments - Investor Protection - Stock Exchange - Functions - Services - Features - Role - Stock Exchange Traders -Regulations of Stock Exchanges - Depository - SEBI - Functions and Working.

**UNIT IV: Leasing and Factoring and Securitisation**

Characteristics - Types - Participants - Myths about Leasing - Hire Purchase – Lease Financing Vs Hire Purchase Financing - Factoring - Mechanism - Functions of a Factor - Factoring - Players- Types - Operational Profile of Indian Factoring - Operational Problems in Indian Factoring - Factoring Vs bills Discounting - Securitisation of Debt- Parties involved- Steps of securitisation - Types of securitisation- Advantages- Limitations – SARFAESI Act 2002- Background- Purpose of the Act- Main provisions

**UNIT V: Venture Capital, credit rating and pension Fund**

Origin and Growth of Venture Capital - Investment Nurturing Methods - Mutual Funds - Portfolio Management Process in Mutual Funds - Credit Rating System - Growth Factors - Credit Rating Process - Global and Domestic Credit Rating agencies - Pension Fund - Objectives - Functions - Features - Types - Chilean Model - Pension Investment Policy - Pension Financing.

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**TEXT BOOKS:**

1. Michael W. Brandi – Money, Banking, Financial Markets and Institutions –Cengage, New Delhi
2. GurusamyS, Essentials of Financial Services, Vijay Nicole Imprints, Chennai, 2014

**REFERENCE BOOKS:**

1. Gomez Clifford, Prentice Hall of India, Financial Markets, Institutions and Financial Services,2008
2. Meir Kohn, Financial Institutions and Markets, Oxford University Press
3. Rajesh Kothari, Financial Services in India: Concept and Application, Sage publications, 2012, New Delhi.
4. MadhuVij & Swati Dhawan, Merchant Banking and Financial Services, Jain Book Agency, 2000, Mumbai
5. Vasant Desai, Financial Markets and Financial Services, Himalayan Publishing House Pvt. Ltd,2000,Mumbai

**WEB RESOURCE:**

1. [www.rbi.org](http://www.rbi.org)
2. [www.sebi.org](http://www.sebi.org)
3. [www.nse.org](http://www.nse.org)

**UNIVERSITY OF MADRAS**  
**B.Com. DEGREE COURSE IN INFORMATION SYSTEM MANAGEMENT**  
**SYLLABUS WITH EFFECT FROM 2020-2021**

**BSM-DSC09**

**CORE-IX: MANAGEMENT INFORMATION SYSTEM (MIS)**

**Inst.Hrs : 6**

**Credits : 4**

**YEAR: II**

**SEMESTER: IV**

**Course Objectives**

1. To offer in-depth knowledge on information systems in business and their management
2. To teach the objectives and components of data base management systems
3. To know the approaches involved in developing MIS
4. To gain knowledge on functional Information systems

**UNIT I - Management Information System** – Concept, Need, Strategic role – Evolution of Management Information System – Components of Management Information System – Information flow

**UNIT II - Data base management systems** – Objectives and Components – Database design – Creation and control – Recent trends in database

**UNIT III - Developing information system** – Planning, Designing and redesigning – Approaches for system development – System analysis and Design – system Implementation and Maintenance

**UNIT IV - Transaction processing and Support system** – Transaction processing system – Office automation systems – Decision support systems – Executive information systems – Artificial intelligence and Expert systems

**UNIT V - Functional Information systems** – Production, Finance, Human resource and Marketing – Managing information resources – Information Security – Control & Audit of Information Systems

**REFERENCE BOOKS**

1. Azam M (2012), Management Information Systems, Vijay Nicole Imprints
2. Davis (2013), 'Management Information Systems', McGraw Hill
3. Eff Oz (2001), 'Management Information Systems', Vikas Publishing house Pvt. Ltd
4. Goyal D P (2010), 'Management Information Systems – Managerial Perspectives', Mac Millan India Ltd
5. James A O' Brain (2014), Management Information Systems', Tata McGraw Hill
6. Kenneth C.Loudan& Jane P.Loudan (2016), "Essentials of MIS", Prentice Hall India
7. Muneesh Kumar (2001), 'Business Information Systems', Vikas Publishing house Pvt. Ltd
8. Prasad L M, Usha Prasad (2012), 'Management Information Systems', Sultan chand& Sons
9. Sadagopan S (2012), 'Management Information System', Prentice Hall
10. Wetherbe, Turban (2000), 'Information Technology for Management', John Wiley publisher

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**SYLLABUS WITH EFFECT FROM 2020-2021**

**BGE-CSC15**

**CORE-XV: LOGISTICS AND SUPPLY CHAIN MANAGEMENT**

Common to BCom(MM) & BCom(ISM)

**Inst.Hrs : 6**

**Credits : Core 4 / Elective 5**

**YEAR: III**

**SEMESTER: V**

**Learning Objectives:**

1. The students to gain deeper insights into logistics and supply chain management.
2. To highlight the integrated nature of working in logistics and supply chain industry.
3. To prepare students to work in logistics and allied industries.

**OUTCOME**

- On completion of syllabus student will understand the basic concepts of logistics and supply chain management and student prepare them self to work in logistics and allied industries

**UNIT I:** Concepts of Logistics – Evolution – Nature and Importance – Components of Logistics Management- Competitive advantages of Logistics – Functions of Logistics management – Principles – Logistics Network- Integrated Logistics system, Supply chain management – Nature and Concepts – Value chain- Functions – Supply chain effectiveness – Outsourcing – 3PLs and 4PLs – Supply chain relationships – Customer services.

**UNIT II:** Elements of Logistics and Supply chain management – Inventory carrying – Warehousing, Technology in the ware house: Computerisation, Barcoding, RFID and WMS – Material handling , Concepts and Equipments: Automated Storage and Retrieval Systems – Order Processing – Transportation – Demand Forecasting – Impact of Forecasts on Logistics and Supply chain Management- Performance measurements.

**UNIT III:** Transportation – Position of Transportation in Logistics and Supply chain management-Road, Rail, Ocean Transport - Ships- Types- Measurement capacity of ships – shipping information, Air, Transport Multi model transport – containerization – CFS – ICDS- Cross Docking- Selection of transportation mode – Transportation Network and Decision – Insurance aspects of logistics.

**UNIT IV:** Logistical Information System (LIS) - Operations – Integrated IT solution for Logistics and supply chain management- Emerging technologies in Logistics and Supply chain management. Components of a logistic system-transportation-Inventory carrying-warehousing-order processing –Distribution channels- Difference between warehouse and distribution centre.

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**UNIT V:** Performance- Bench marking for supply chain improvement- Dimensions and achieving excellence- Supply Chain Measures – SCOR model- Logistics score board- Activity Based Costing - Economic Value Added Analysis- Balance Score card approach-Lean thinking and six sigma approach in Supply Chain.

**Recommended Text**

1. John J.Coyle , C. John Langley .JR., Robert A. Novack , Brian J.Gibson – Supply Chain Management A Logisticss Perspective – CENGAGE , New Delhi
2. Joel D.Wisner , Keah – Choon Tan , G.Keong Leong – Principles of Supply Chain Management A Balanced Approach– CENGAGE, New Delhi

**REFERENCE BOOKS:**

1. Agarwal, D.K., ‘Textbook of Logistics and Supply Chain Management’, Mac Millan India Ltd, 2003.
2. Chase, R.B., Shankar, R and Jacobs, F.R. ‘Operations Management and Supply Chain Management’, McGraw Hill Publications, 13<sup>th</sup> edition, 2018.
3. Chopra, S., Meindl, P. and Kalra, D.V. ‘Supply Chain Management’, Pearson Education India, 6<sup>th</sup> edition, 2016.
4. Krishnaveni Muthiah, ‘Logistics Management and Seaborne Trade’, Himalaya Publishing House, 2010.
5. Martin Christopher, ‘Logistics and Supply Chain Management’ Pearson Education, 2003.
6. Ronald H. Ballou, ‘Business Logistics and Supply Chain Management’ Pearson Education 2004.

**E-RESOURCES:**

1. [www.managementstudyguide.com](http://www.managementstudyguide.com)
2. [https://www.tutorialspoint.com/supply\\_chain\\_management/supply\\_chain\\_management\\_tutorial.pdf](https://www.tutorialspoint.com/supply_chain_management/supply_chain_management_tutorial.pdf)
3. <https://www.camcode.com/asset-tags/supply-chain-management-guide/>
4. <https://library.ku.ac.ke/wp-content/downloads/2011/08/Bookboon/Magement%20andOrganisation/fundamentals-of-supply-chain-management.pdf>
5. [https://www.youtube.com/watch?v=PmR2SKeY9Ms&list=PLGit8yny\\_3ANzZMsJJjeuxMg-S0f0hGcn](https://www.youtube.com/watch?v=PmR2SKeY9Ms&list=PLGit8yny_3ANzZMsJJjeuxMg-S0f0hGcn)
6. <https://www.youtube.com/watch?v=IqmrNUoiz7g&list=PLF9071540F59BA1F0>

**UNIVERSITY OF MADRAS**  
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**SYLLABUS WITH EFFECT FROM 2020-2021**

**BGE-CSE3B**

**ELECTIVE-III(B): PORTFOLIO MANAGEMENT**

Common to BCom(A&F) as V-Sem.Elective, BCom(BM), BCom(CA) & BCom(ISM)

**Inst.Hrs : 6**

**Credits : 5**

**YEAR: III**

**SEMESTER: VI**

**OBJECTIVES**

To acclimate the students on the concept of Portfolio Management.

- To facilitate the students to know the techniques of Portfolio Management.

**OUTCOME**

- On completion of syllabus student will understand the basic concepts of Portfolio Management and the techniques of Portfolio Management.

**UNIT I: Introduction**

Portfolio - Meaning - Objectives - Terms relating to Portfolio - Securities - Risk – Return - Introduction to Portfolio Management – Role of Portfolio Managers.

**UNIT II: Value of Money**

Time value- Computation of Present Value Interest Factor(PVIF), Future Value Interest Factor(FVIF), Present Value Interest Factor at an Annuity(PVIFA) - Future Value Interest Factor at an Annuity (FVIFA) Simple Problems relating to it.

**UNIT III: Portfolio Analysis**

Planning – Selection – Evaluation – Revision -Various Steps involved in Portfolio Development Theories relating to Portfolio Analysis.

**UNIT IV: Risk & Return**

Interpretation of Risk & Return – Mean – Variance Analysis - B(Beta) Measures. Portfolio Diversification – Bond Valuation.

**UNIT V: Need and Importance of Portfolio Management**

Portfolio Management Vs Wealth Management – Introduction to Derivatives – Futures Options – Swaps – SEBI Regulations relating to Portfolio Operations.

**Note:** Questions in Sec.A, B & C shall be in the proportion of 80:20 between Theory and Problems.

**TEXT BOOK:**

1. Francis-Management of Investments, McGraw Hill.
2. Gurusamy S, Security Analysis and Portfolio Management, Vijay Nicole Imprints, Chennai

**REFERENCE BOOKS:**

1. V.K. Bhalla- Investment Management, S Chand & Co
2. Fisher & Jordan-Security Analysis & Portfolio Management, prentice Hall
3. Punithaathi Pandian- Security Analysis & Portfolio Management, Vikas Publishing House

**WEB RESOURCE:**

1. [www.portfoliomanagement.in](http://www.portfoliomanagement.in)
2. [www.sebi.gov.in](http://www.sebi.gov.in)
3. [www.moneycontrol.com](http://www.moneycontrol.com)
4. [www.pms.sharekhan.com](http://www.pms.sharekhan.com)

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**SYLLABUS WITH EFFECT FROM 2020-2021**

**BSM-DSC13**

**CORE-XIII: FINANCIAL MANAGEMENT**

**Inst.Hrs : 6**  
**Credits : 4**

**YEAR: III**  
**SEMESTER: V**

**Course Objectives**

1. To impart the basics of Financial Management for the benefit of Commerce students.
2. To enable the students to know the concepts of the Investment, Financing and Working Capital.

**UNIT I: Introduction**

Meaning and Objectives of Financial Management - Functions of Financial Management. Finance - Importance of Finance - Sources of Finance - Role of Financial Manager in Financial Management.

**UNIT II: Capital Structure**

Meaning - Factors affecting Capital Structure - Planning - Theories of Capital Structure - Determining Debt Equity Proportion - Leverage Concept.

**UNIT III: Cost of Capital**

Definition - Cost of Equity Capital - Cost of Preference Capital - Cost of Debt - Cost of Retained Earnings - Weighted Average (or) Composite cost of capital (WACC)

**UNIT IV: Dividend**

Meaning - Dividend Policies - Factors affecting Dividend Payment - Provisions on Dividend Payment in Company Law - Dividend Models - Walter's Model - Gordon's Model - M.M. Model - Hypothesis Model.

**UNIT V: Working Capital**

Working Capital - Meaning and importance - Factors Influencing Working Capital - Determining (or) Forecasting of Working Capital requirements - Working Capital Operating cycle.

**Note: Questions in Sec. A, B & C shall be in the proportion of 20:80 between Theory and Problems.**

**TEXT BOOK:**

1. William R. Lasher – Financial Management - CENGAGE New Delhi
2. I.M. Pandey, Financial Management, Vikas Publishing House
3. Prasanna Chandra, Financial Management, Tata McGraw Hill Publications

**REFERENCE BOOKS:**

1. S.N.Maheswari, Financial Management, Sultan Chand & Sons
2. Y.Khanand Jain, Financial Management, Sultan Chand & Sons
3. P.Periyasamy,P,FinancialManagement,VijayNicoleImprintsPvt.Ltd.Chennai
4. Murthy A, Financial Management, Margam Publications, Chennai

**E-Resources**

[www.cpdwise.com](http://www.cpdwise.com)  
[www.simplilearn.com](http://www.simplilearn.com)  
[www.findtutorials.com](http://www.findtutorials.com)  
[www.studyfinance.com](http://www.studyfinance.com)

**UNIVERSITY OF MADRAS**  
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**SYLLABUS WITH EFFECT FROM 2020-2021**

**BSM-DSC15**

**CORE-XV: SPREAD SHEET ACCOUNTING**

**Inst.Hrs : 6**  
**Credits : 4**

**YEAR: III**  
**SEMESTER: V**

**Course Objectives**

1. To introduce students to Spreadsheets as an important tool in business applications
2. To familiarize them with the features and functions of a spreadsheet
3. To introduce concepts of accounting, reporting and analysis using spreadsheets

**UNIT I: Spreadsheets:** A tool for thinking with numbers What is a Spreadsheet – History of Spreadsheet – Spreadsheets in Popular use (Google Spreadsheet and Microsoft Excel) – Differences between Microsoft Excel and Google Sheets – Spreadsheet Basics – Cells, Rows, Columns, Cell Coordinates – Getting Familiar with the Menus on a Spreadsheet – Edit and Format a Spreadsheet – Saving a Spreadsheet – Construct, Modify, and Format and Print a Spreadsheet

**UNIT II: Spreadsheet Functions:** Formulas Basic Functions – Date and Time Functions – Logical Functions - Manipulating Text using Functions – Financial and Statistical Functions – Database Functions

**UNIT III: Spreadsheet Functions:** Data Filter and Sort Functions – Data Validation – Conditional Filters – Pivot Tables – Group and Sub-Totals – What-if Analysis – Writing Macros (Basics) - Connect to Database (optional topic)

**UNIT IV: Spreadsheet for Reporting and Analysis** - Import Data Sets and Spreadsheets – Set Calculations Settings – Graphs and Charts – Using QUERY Function - Statistical Trend Analysis

**UNIT V: Spreadsheet for Accounting** - Create and Customize a Spreadsheet to journalize and post transactions – Preparing a Budget / Costing Sheet Template – Personal Income Tax Calculator Template

**Assessment Model:** 10 % Theory and 90 % Practical

**Reference Books**

Learning Microsoft Excel 2013, Ramesh Bangia, Khanna Book Publishing  
Microsoft Excel, Data Analysis and Business Modelling; Wayne L Winston; Prentice Hall  
Google Sheets Basics: Masato Takeda and others; TekuruInc

**E-Resources**

<https://www.freebookkeepingaccounting.com/using-excel-in-accounts>  
<https://courses.corporatefinanceinstitute.com/courses/free-excel-crash-course-for-finance>  
[https://www.youtube.com/watch?v=Nv\\_Nnw01FaU](https://www.youtube.com/watch?v=Nv_Nnw01FaU)



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**SYLLABUS WITH EFFECT FROM 2020-2021**

**BSM-DSC16**

**CORE-XVI: BUSINESS ANALYTICS**

**Inst.Hrs : 6**  
**Credits : 4**

**YEAR: III**  
**SEMESTER: V**

**Course Objectives**

1. To enable students to learn the basics of business data analytics platforms
2. To teach quantitative analysis including sampling etc
3. To learn advanced statistical techniques such as multivariate analysis etc
4. To teach the techniques of regression analysis

**UNIT I: Introduction to Data Analytics Platform** - Visualizing Data - Describing and Summarizing Data - Challenges of Conventional Systems - Intelligent Data Analysis - Analytic Methodologies or Techniques Used in Logical Analysis

**UNIT II: Quantitative Analysis** - Sampling Methods and Estimation – Probability Distributions - Descriptive Statistics - Inferential Statistics - Hypothesis Testing, Explanatory and Predictive Models, and Fact-Based Management to Drive Decisions and Actions - Tools - Analysis vs Reporting.

**UNIT III: One-Sample Tests** - Two Independent Samples Tests - K Related Samples Tests - Measures of Correlation and Association - Multivariate Nonparametric Test for Interdependence - Probability and Decision Making Under Uncertainty - Normal, Binomial, Poisson, and Exponential Distributions

**UNIT IV: Data Mining** - Importing Data into Excel - SQL - Analysis of Variance and Experimental Design - Statistical Process Control - Statistical Reporting - Foundations, Methods, Interpretations in Excel – R – STATA – PSPP – EVIEWS – Machine Learning.

**UNIT V: Regression Analysis** - Estimating Relationships - Linear versus Nonlinear Relationships - Statistical Inference - Time Series Forecasting - Introduction to Optimization and Simulation Modeling – Optimization and Simulation Model - Decision Support System

**REFERENCE BOOKS**

1. Bowerman, B. (2016). Business Statistics in Practice: Using Data, Modeling, and Analytics. McGraw-Hill Higher Education
2. Christian Albright, Wayne L. Winston (2015). Business Analytics : Data Analysis and Decision Making 5th Edition, CENGAGE
3. Cliff, T. (2014). Exploratory Data Analysis in Business and Economics: An Introduction Using SPSS, Stata, and Excel: Springer, New York, New York, 215
4. Gert H. N. Laursen, JesperThorlund (2018). Business Analytics for Managers, 2ed: Taking Business Intelligence Beyond Reporting, Wiley
5. Kumar, U. D. (2017). Business Analytics the Science of Data-Driven Decision Making. Wiley
6. Ledolter, J. (2013). Data mining and business analytics with R. John Wiley & Sons
7. Jensen, C. (2017). Data Science for Business: Data Analytics Guide with Strategies and Techniques
8. Prasad R N and Seema Acharya (2016). Fundamentals of Business Analytics, 2ed, Wiley
9. Williams, S. (2016). Business intelligence strategy and Big Data analytics: a general management perspective. Morgan Kaufmann.

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**BGE-CSC18**

**CORE-XVIII: MANAGEMENT ACCOUNTING**

Common to BCom(A&F), BCom(CS), BCom(BM),  
BCom(MM), BCom(CA) & BCom(ISM)

**Inst.Hrs : 6**  
**Credits : 4**

**YEAR: III**  
**SEMESTER: VI**

**OBJECTIVES**

- To enable the students to get knowledge about the various techniques of Management Principles.
- To make the students to get practical skill in solving management problems.

**OUTCOME:**

- Understand the primary purpose of management accounting namely financial statement analysis and budgetary control
- Develop and apply budget for planning and controlling purpose.

**UNIT I: Introduction**

Management Accounting - Meaning- Scope- Importance- Limitations - Management Accounting Vs Cost Accounting – Management Accounting Vs Financial Accounting.

**UNIT II: Financial Statement Analysis**

Analysis and Interpretation of Financial Statements – Nature and Significance – Types of Financial Analysis – Tools of Analysis – Comparative Statements – Common size Statement – Trend Analysis.

**UNIT III: Ratio Analysis**

Meaning – Advantages – Limitations – Types of Ratios – Liquidity Ratios – Profitability Ratios Turnover Ratios – Capital Structure Ratios – Leverage Ratios – Calculation of Ratios.

**UNIT IV: Fund Flow Analysis & Cash Flow Analysis**

Introduction, Meaning of Funds Flow Statement-Ascertainment of flow of funds- Technique of preparing funds flow statement- Schedule of Changes in Working Capital- Adjusted Profit and Loss account-Funds Flow Statement

Meaning of Cash Flow Statements – Advantages – Limitations – Preparation of Cash Flow Statement – Types of Cash flows - Operating, Financing and Investing Cash flows.

**UNITV: Budgetary Control & Marginal Costing**

Budgetary Control – Meaning – Preparation of various Budgets – Cash Budget - Flexible Budget – Production Budget – Sales Budget. Capital Expenditure Control - Application of Marginal Costing in Decision Making – Make or Buy –Shut down or Continue – Exploring New Markets.

**Note:** Questions in Sec. A, B & C shall be in the proportion of 20:80 between Theory and Problems.

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**TEXT BOOK:**

1. Rajiv Kumar Goel , Ishaan Goel – Concepts Building Approach to management Accounting –CENGAGE New Delhi
2. Drury – Management and Cost Accounting with CourseMate
3. Maheswari,S.N.,Management Accounting, Sultan Chand & Sons

**REFERENCE BOOKS:**

1. MurthyA andGurusamy S ,Management Accounting- Theory &Practice, Vijay Nicole Imprints Pvt. Ltd .Chennai
2. Charles T. Horngren and Gary Sundem, N, Introduction to Management Accounting, Prentice Hall
3. Sharma and Shashi K. Gupta, Management Accounting, Kalyani Publishers
4. Reddy, T.S. & Dr. Hariprasad Reddy, Y, Management Accounting, Margham Publications, Chennai.
5. Hansen - Mowen, Cost Management Accounting and Control, South Western College

**WEB REFERENCE:**

1. [www.accountingcoach.com](http://www.accountingcoach.com)
2. [www.accountingstudyguide.com](http://www.accountingstudyguide.com)
3. [www.futureaccountant.com](http://www.futureaccountant.com)
4. [www.thestudentcpa.com](http://www.thestudentcpa.com)

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**SYLLABUS WITH EFFECT FROM 2020-2021**

**BGE-CSC19**

**CORE-XIX: ENTREPRENEURIAL DEVELOPMENT**

Common to BCom(A&F) as Elective, BCom(CS),  
BCom(BM), BCom(MM) & BCom(ISM)

**Inst.Hrs : 6**

**Credits : Core 4 / Elective 5**

**YEAR: III**

**SEMESTER: VI**

**Course Objectives:**

1. To enable the students to understand the concept of Entrepreneurship and to learn the professional behavior expected of an entrepreneur.
2. To identify significant changes and trends which create business opportunities and to analyze the environment for potential business opportunities.
3. To provide conceptual exposure on converting idea to a successful entrepreneurial firm.

**OUTCOME**

- On completion of syllabus student will understand on the basic concepts of entrepreneurship and business opportunities to familiar with knowledge about business and project reports for starting a new ventures on team based.

**UNIT I: Entrepreneurship**

Entrepreneur : Meaning of entrepreneurship – Types of Entrepreneurship – Traits of entrepreneurship – Factors promoting entrepreneurship- Barriers to entrepreneurship- the entrepreneurial culture- Stages in entrepreneurial process – Women entrepreneurship and economic development- SHG.

**UNIT II: Developing Successful Business Ideas**

Recognizing opportunities – trend analysis – generating ideas – Brainstorming, Focus Groups, Surveys, Customer advisory boards, Day in the life research – Encouraging focal point for ideas and creativity at a firm level-Protecting ideas from being lost or stolen – Patents and IPR.

**UNIT III: Opportunity Identification and Evaluation**

Opportunity identification and product/service selection – Generation and screening the project ideas – Market analysis, Technical analysis, Cost benefit analysis and network analysis- Project formulation – Assessment of project feasibility- Dealing with basic and initial problems of setting up of Enterprises.

**UNIT IV: Business Planning Process**

Meaning of business plan- Business plan process- Advantages of business planning- preparing a model project report for starting a new venture (Team-based project work).

**UNIT V: Funding**

Sources of Finance- Venture capital- Venture capital process- Business angles- Commercial banks- Government Grants and Schemes.

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**TEXT BOOKS:**

1. Reddy, Entrepreneurship: Text & Cases - Cengage, New Delhi.
2. Kuratko/rao, Entrepreneurship: a south asian perspective.- Cengage, New Delhi.
3. Leach/Melicher, Entrepreneurial Finance – Cengage. , New Delhi.
4. K.Sundar – Entrepreneurship Development – Vijay Nicole Imprints private Limited
5. Khanka S.S., Entrepreneurial Development, S.Chand & Co. Ltd., New Delhi, 2001.
6. Sangeeta Sharma, Entrepreneurship Development, PHI Learning Pvt. Ltd., 2016.

**REFERENCE BOOKS:**

1. Barringer, B., Entrepreneurship: Successfully Launching New Ventures, 3<sup>rd</sup> Edition, Pearson, 2011.
2. Bessant, J., and Tidd, J., Innovation and Entrepreneurship, 2<sup>nd</sup> Edition, John Wiley & Sons, 2011.
3. Desai, V., Small Scale Industries and Entrepreneurship, Himalaya Publishing House, 2011.
4. Donald, F.K., Entrepreneurship- Theory, Process and Practice, 9<sup>th</sup> Edition, Cengage Learning, 2014.
5. Hirsch, R.D., Peters, M. and Shepherd, D., Entrepreneurship, 6<sup>th</sup> Edition, Tata McGraw-Hill Education Pvt.Ltd., 2006.
6. Mathew, J.M., Entrepreneurship Theory at Cross Roads: Paradigms and Praxis, 2<sup>nd</sup> Edition, Dream Tech, 2006.
7. Morse, E., and Mitchell, R., Cases in Entrepreneurship: The Venture Creation Process, Sage South Asia, 2008.
8. Nagendra and Manjunath, V.S., Entrepreneurship and Management, Pearson, 2010.
9. Reddy, N., Entrepreneurship: Text and Cases, Cengage Learning, 2010.
10. Roy, R., Entrepreneurship, 2<sup>nd</sup> Edition, Oxford University Press, 2011.
11. Stokes, D., and Wilson, N., Small Business Management and entrepreneurship, 6<sup>th</sup> Edition, Cengage Learning, 2010.

**E-RESOURCES:**

1. <http://inventors.about.com/od/entrepreneur/>
2. <http://learnthat.com/tag/entrepreneurship/>
3. [www.managementstudyguide.com](http://www.managementstudyguide.com)
4. [www.quintcareers.com](http://www.quintcareers.com)
5. [www.entrepreneur.com](http://www.entrepreneur.com)

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**BSM-CSE3B**

**ELECTIVE-III(B): PROJECT WORK (GROUP)**

Common to BCom(MM)

**Inst.Hrs : 6**

**Credits : 5**

**YEAR: III**

**SEMESTER: VI**

A Group of 3 students will be assigned a Project in the beginning of the Final year. The Project Work shall be submitted to the College 20 days before the end of the Final year and the College has to certify the same and submit to the University 15 days prior to the commencement of the University Examinations.

The Project shall be evaluated externally. The External Examiner shall be from the Panel of Examiners suggested by the board of Studies from time to time.

Those who fail in the Project Work will have to redo the Project Work and submit to the College for External examination by the University.

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**BSM-DSC17**

**CORE-XVII: SOFTWARE PROJECT MANAGEMENT**

**Inst.Hrs : 6**

**Credits : 4**

**YEAR: III**

**SEMESTER: VI**

**Course Objectives**

1. To enable the students to learn about the software relating to project management
2. To teach the students the selection of appropriate project approaches

**UNIT I**

Introduction to Software Project Management Software project versus other types of project - problems - management control - stakeholders - Requirement specifications - Information and control in organizations. Introduction to step wise project planning - Select - identify scope and objectives - identify project infrastructure - Analyse project characteristics - products and activities - Estimate effort for each activity - Identify activity risks - Allocate resources - Review / publicise plan - Execute plan and lower levels of planning. Project evaluation - Introduction - Strategic assessment - technical assessment - cost benefit analysis - cash flow forecasting - cost benefit evaluation techniques - risk evaluation.

**UNIT II**

Selection of an appropriate project approach - choosing technologies - technical plan contents list - choice of process models - structured methods - rapid application development - waterfall model - v - process model - spiral model - software prototyping - ways of categorizing prototypes - tools - incremental delivery - selecting process model - Software effort estimation - introduction - where - problems with over and under estimates - basis for software estimating - software effort estimation technique - expert judgment - Albercht function point analysis - Function points Mark II - Object points - procedural code oriented approach - COCOMO - Activity Planning - Objectives - Project schedules - projects and activities - sequencing and scheduling activities - network planning models - formulating a network model - using dummy activities - representing lagged activities adding time dimensions - forward pass - backward pass - identifying the critical path - Activity float - shortening project duration - identifying critical activities - precedence networks.

**UNIT III**

Risk Management - nature of risk - managing - identification - analysis - reducing - evaluating - z values. Resources allocation - nature of resources - requirements - scheduling - critical paths - counting the cost - resources schedule - cost schedule - scheduling sequence. Monitoring and control - creating the frame work - collecting the data - visualizing the progress - cost monitoring - earned value - prioritizing monitoring - Change control.

**UNIT IV**

Managing contracts - types of contract - stages in contract placement - terms of a contract - contract management - acceptance. Managing people and organizing teams - organizational behaviour background - selecting the right person for the job - instruction in the best methods - motivation - decision making - leadership - organizational structures. Software quality -

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importance - defining - IS09126 practical measures - product versus process quality management - external standards - techniques to help enhance software quality.

**UNIT V**

Small projects - some problems - content of a project plan. PRINCE 2 - an overview BS 6079: 1996 - an overview - Euro method an overview.

**REFERENCE BOOKS**

1. Bob Hughes and Mike Cotterell-Software project management-second edition-McGraw Hill
2. Walker Royce - Software Project Management - Addison Wesley.



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**BSM-DSE2B**

**ELECTIVE-II(B): WEB TECHNOLOGY**  
**THEORY AND PRACTICALS**

**Inst.Hrs : 6**  
**Credits : 5**

**YEAR: III**  
**SEMESTER: VI**

**Course Objectives**

- To give knowledge of creating static and dynamic web pages.

**UNIT – I**

Internet Basic – Introduction to HTML – List – Creating Table – linking document – frames – graphics to HTML Doc- Creating simple static pages.

**UNIT – II**

Introduction to JavaScript – Advantage of Java script – java script syntax – Data type – variable – array – operator and expression – looping constructor – function – Dialog box

**UNIT – III**

JavaScript document object model – introduction – object in HTML – event handling – window object – browser object – form object – navigator object – build in object – cookies.

**UNIT – IV**

ASP.NET: Language Structure – page structure – page event, properties - compiler directives. HTML server controls – Anchor, Tables, Forms - Basic Web server controls – label, textbox, button, image, links, check & radio button, hyperlink.

**UNIT – V**

Request and Response objects - Working with data – OLEDB connection class, Command class Transaction class, data adaptor class, data set class.

Security: Authentication, IP Address, Secure by SSL & Client Certificates.

**BOOKS FOR STUDY AND REFERENCE:**

1. I. Bayross, *Web Enable Commercial Application Development Using HTML, DHTML, javascript, Perl CGL*. BPB Publications, 2000.
2. G. Buczek, *ASP.NET Developers Guide*, TMH, 2002
3. A.Russell Jones, *Mastering Active Server Pages 3*, BPB Publications.

**HTML, JAVA SCRIPT and ASP.NET**

1. Creation of a personal web page (with links)
2. Preparation of a bio data
3. Prepare a train time table using row/column span
4. Create an array of 10 elements and display it.
5. Write a program outputs the squares, roots and cubes of integers between 1 and 100
6. Read a string and looks it character by character.
7. Design a Simple calculator.
8. Create a web form for a library application with necessary controls.

**Note:** The practical examination will be conducted by an internal examiner and an external examiner jointly.