

# B.Com. Computer Applications

## Courses and Syllabi

(2017-2020)



**P.G. & RESEARCH DEPARTMENT OF COMMERCE  
BISHOP HEBER COLLEGE (Autonomous)**

(Affiliated to Bharathidasan University)

(Reaccredited with 'A' Grade (CGPA – 3.58/4.0) by the NAAC &

Identified as College of Excellence by the UGC)

DST – FIST Sponsored College & DBT Star College

**TIRUCHIRAPPALLI – 620 017**

**TAMIL NADU, INDIA**

2017-2020

**Programme : B.Com. CA**

**BACHELOR OF COMMERCE – COMPUTER APPLICATIONS (2017 – 2020)**

Sem	Part	Course	Title	Code	Instr. Hours/Week	Credits	Marks		
							CIA	Ext.	Total
I	I	Language I	Tamil I	U15TM1L1	6	3	25	75	100
	II	English I	English Communication Skills-I	U16EGPL1	6	3	25	75	100
	III	Core I	Principles of Accountancy	U16CC101	6	4	25	75	100
		Core II	E Commerce	U16CC1Y1	5	4	25	75	100
		Allied I	Business Economics	U16CCPY2	4	3	40	60	100
	IV	Env. Stud.	Environmental Studies	U08EST21	1	2	25	75	100
		Value.Edu.	Value Education (RI/MI)	U08VL1:1/ U08VL1:2	2	2	25	75	100
		Total		30	21				
II	I	Language II	Tamil II	U15TM2L2	6	3	25	75	100
	II	English II	Communication Skills-II	U16EGP22	6	3	25	75	100
	III	Core III	Banking Theory Law and Practice	U16CC202	5	5	25	75	100
		Core IV	Programming in C++	U16CCPY3	6	4	40	60	100
		Allied II	Business Statistics	U16CC2Y4	6	4	25	75	100
	IV	Env.Stud.	Environmental Science	U08EST21	1	2	25	75	100
		Total		30	21				
III	I	Language III	Tamil III	U15TM3L3	6	3	25	75	100
	II	English III	English for Competitive Examinations/Business Communication in English	U16EGPL3/ U17EGCL3	6	3	25	75	100
	III	Core V	Advanced Accounting	U16CC303	5	5	25	75	100
		Elective I	Quantitative Techniques	U16CC304	4	3	40	60	100
		Allied III	Internet and Web Designing	<b>U16CCPY5</b>	5	5	25	75	100
	IV	SBEC I	Office Automation	U16CCPS1	2	3	40	60	100
		NMEC I	Introduction to Accountancy	U16CC3E1	2	2	25	75	100
		Total		30	23				

Sem	Part	Course	Title	Code	Instr. Hours/Week	Credits	Marks		
							CIA	Ext.	Total
IV	I	Language IV	Tamil IV	U15TM4L4	6	3	25	75	100
	II	English IV	English through Literature	U16EGNL4	6	3	25	75	100
	III	Core VI	Cost Accounting	U16CC405	5	4	25	75	100
		Elective II	Commercial Law	U16CC4:1	4	3	25	75	100
		Allied IV	Java Programming	U16CCPY6	5	5	40	60	100
	IV	SBEC II	Principles of Management	<b>U16CC4S2</b>	2	3	25	75	100
		NMEC II	Principles of Commerce	U16CC4E2	2	2	25	75	100
					30	23			
V	III	Core VII	Income Tax Law and Practice	U16CC506	6	5	25	75	100
		Core VIII	Corporate Accounting	U16CC507	6	5	25	75	100
		Core IX	Computers in Business	U16CCP08	6	5	40	60	100
		Elective III	Human Resource Management / Enterprise Resource Planning	U16CC5:1/ U16CC5:2	5	5	25	75	100
		Allied V	Financial Management	U16CC509	5	4	25	75	100
	IV	SBEC III	Soft Skills	U16CC5S3	2	2	25	75	100
					30	26			
VI	III	Core X	Business Mathematics	U16CC610	6	5	25	75	100
		Core XI	Software Engineering	<b>U16CC611</b>	6	5	40	60	100
		Core XII	RDBMS	<b>U16CCP12</b>	6	5	25	75	100
		Core XIII	Management Accounting	U16CC613	6	5	40	60	100
		Allied VI	Cyber Law	U16CC6:1	6	3	25	75	100
	V		Extension Activities Gender Studies			2 1			
			Total		30	26			



**SEMESTER I**  
**PRINCIPLES OF ACCOUNTANCY**

**Core I**  
**Credits: 4**

**Code:U16CC101**  
**Hours per week: 6**

**Objectives**

At the end of the course students shall have an understanding of basic accounting concept and shall have acquired skills in preparing various accounts.

**Unit I**

Journal Entries –Ledger – Trial balances - Trading accounts – Profit and Loss accounts – Balance sheet – adjustment entries.

**Unit II**

Depreciation, provision and reserve – concept of depreciation - causes of depreciation – methods of recording depreciation – SLM , WDV – Depreciation accounting provision and reserves – Self balancing ledger.

**Unit III**

Bank Reconciliation Statement - Bills of Exchange (Excluding Accommodation bills.)

**Unit IV**

Accounts of non profit organization – Receipts and Payments accounts – Income and Expenditure account – Balance sheet.

**Unit V**

Consignment and Joint Ventures.

**Reference**

Vianayagam, Nagarajan K.L P.L. Mani, R.L. Gupta - Principles of Accountancy- S Chand Publication

Arulanandam and Raman - Advanced Accountancy, Himalaya Publications

Hanif& Mukherjee -Modern Accountancy I, Tata Mcgraw Hill Publication

**SEMESTER -I**  
**E-COMMERCE**

**Core : II**  
**Hours per week: 5**

**Code: U16CC1Y1**  
**Credit: 4**

**Objectives**

At the end of the course students shall be able to practice on-line business and E-Commerce practices

**Unit -I**

Electronic Commerce Framework, Traditional vs. Electronic business applications, the anatomy of E-commerce applications.

**Unit -II**

Network infrastructure for E-Commerce - components of the I-way - Global information distribution networks - public policy issues shaping the I-way. The internet as a network infrastructure. The Business of the internet commercialization.

**Unit -III**

Network security and firewalls - client server network security - firewalls and network security - data and message security - encrypted documents and electronic mail.

**Unit -IV**

Electronic Commerce and world wide web, consumer oriented E-commerce, Electronic payment systems, Electronic data interchange (EDI), EDI applications in business ,EDI and E-commerce, EDI implementation.

**Unit -V**

Intraorganizational Electronic Commerce, supply chain management. Electronic Commerce catalogs, Document Management and digital libraries.

**Text**

R. Kalakota and A. B. Whinston- Frontiers of Electronic Commerce - Addison Wesley.

**Reference**

Nidhi Dhawan – Introduction to E Commerce – International Book House

**SEMESTER – I**  
**BUSINESS ECONOMICS**

**Allied I**  
**Credit: 3**

**Code: U16CC1Y2**  
**Hours per week : 4**

**Objectives**

At the end of the course students shall be able to understand the fundamental concepts of economics and will be able to correlate these concepts to real life situation to markets in particular and the economy in general.

**Unit I**

Definition – The economic system – central problems of an economy – Central problems and the price mechanism – resource allocation in a Capitalist, Socialist and Mixed Economy.

**Unit II**

Demand – Demand curve – Law of Demand -Elasticity of demand and its types – measurement(total outlay and ARC point) – factors governing price elasticity of demand – Supply law of supply and supply schedules –supply curve – determinants of supply.

**Unit III**

The Indifference curves analysis of demand- Indifference schedule – The Principle of Diminishing marginal Rate of Substitution – Properties of indifference curves – Consumer's equilibrium in indifference analysis – Production function.

**Unit IV**

Cost analysis – cost concepts and classification – cost of production in the short and long period . Market in economic analysis – classifications of markets – perfect, imperfect, Monopoly, Duopoly and Oligopoly(meaning and features only), Monopolistic, Monopsony and price determination.

**Unit V**

Trade cycle – Phases or stages of a Trade Cycle –National income – Estimation of national income as Net aggregate output – National Income as aggregate value of final products – Real and money national income .

**Text**

KPM Sundharam & E N Sundharam- Business Economics - Sultan Chand& Sons

**Reference**

Dr. S. Sankaran - Business Economics –Margham Publications

**SEMESTER – II**  
**BANKING THEORY LAW AND PRACTICE**

**Core III**  
**Credit: 5**

**Code:U16CC202**  
**Hours per week: 5**

**Objectives**

At the end of the course students shall be able to learn and understand the structure and functioning of Banking system, Central bank and Commercial banks in India.

**Unit I**

Origin and development of banks – Banking Regulations Act 1949 – (Definition of Banking ,Licensing ,– Opening of branches, – Importance and Functions of Banks , – Inspection.)Relationship between Banker and Customer – Special types of Banker’s customers.

**Unit II**

Commercial banks – Universal Banking –Management of Deposits and Advances – Classification and nature of Deposit accounts – Advances, Types of Advances, Lending practice – principles of sound bank lending.

**Unit III**

Central bank – Reserve Bank of India – Objectives – organization – functions – monetary policy – credit control measures and their effectiveness.

**Unit IV**

Negotiable Instruments– Definition – features – Promissory note, Bill of exchange and Cheque – Holder and holder in due course – Crossing of a cheque – Types of crossing – Endorsement- Negotiation & Dishonour and discharge of Negotiable instrument- Protection of Collecting Banker and Paying Banker

**Unit V**

E – banking – Meaning – benefits – electronic transfer –( NEFT, – ECS (Credit and Debit), RTGS – Internet banking, - Mobile banking – plastic money - Demat account- ASBA.

**Text**

KPM Sundharam& PNVarhney(2010)- “ Banking theory law and practice”. Sultan Chand & Sons, Publication , New Delhi

**References**

- |             |  |
|-------------|--|
| S. Sankaran | - Currency and Banking , Margham           |
| B. S. Raman | - Banking theory law and practice.         |
| Pravanavel  | - Banking theory law and practice, Margham |



## **II SEMESTER PROGRAMMING IN C++**

**Core – IV  
Credit : 5**

**Code : U16CCPY3  
Hours per week : 6**

### **Objective**

At the end of the course the students shall be able to write programmes under C++.

### **Unit-1**

#### **Object Oriented Programming**

Introduction to OOP - Meaning of Object - Meaning of Class – LOOP - characteristics: Creation of new Data Types, Giving importance to Class, Inheritance, Encapsulation, Abstraction, Polymorphism, Operator Overloading, Function Overloading, Function Defining, Software Reusability.

### **Unit-2**

#### **C Versus C++**

Comparison between C and C++ – Data Types: Integer Data Types . Char. Unsigned Char, Short, Unsigned Short, Int, Unsigned Int, Long, Unsigned Long. Floating Data Types . Input Statement (or) Input Function - Cin>> – Output Statement (or) Output Function - Cout>> – Arithmetic Operators - Logical Operators - Relational Operators.

### **Unit-3**

#### **Arrays**

Introduction to Arrays - Declaration of Arrays - Different Types of Arrays : - One Dimensional Array, Two Dimensional Array. Array Examples on Variables – Array Examples on Constants.

### **Unit-4**

#### **Programming Constructs**

Unary Operators - Increment Operator (++), Prefix Notation, Postfix Notation, Decrement Operator ( -- ). Conditional Constructs - Switch .Case Construct, Break Statement, Default Keyword, Conditional Operator. Loop Construct - While Loop, Do. while Loop, For loop. Examples on Programming Constructs.

### **Unit -5**

#### **Important Features of C++**

Classes - Objects – Structure – Pointers - Enumerated Data Types – Constructors - Destructors.

**Text**

E.Balagurusamy- Object Oriented Programming with C++ -McGraw Hill

**Reference**

- 1) Yashavant Kanetkar- Introduction to Object Oriented Programming with C++ -BPB Publications
- 2) D.Ravichandran - Programming with C++ - McGraw Hill
- 3) Yashavant Kanetkar - Let Us C++ - BPB Publications

**Theory and Practicals.**

**SEMESTER – II**  
**BUSINESS STATISTICS**

**ALLIED II**  
**Credit: 4**

**Code: U16CC2Y4**  
**Hours per week: 6**

**Objectives**

At the end of the course students shall be able to understand the various statistical tools and will be able to apply the tools in analysis and interpretation of data.

**Unit I**

Introduction to the study of Statistics – Statistical inquires and sampling – collection of data – Preliminary considerations and techniques –classification and tabulation of data and diagrammatic representation. Graphic representation – Line graphs for time series – charting frequency series – Histograms – Frequency Polygon – Smooth frequency curve – Ogive or cumulative frequency curve.

**Unit II**

Measures of central Tendency – Mathematical and positional averages – Quartiles, Deciles and Percentages – The choice of averages – Misuse of averages.

**Unit III**

Measures of Dispersion – Range – Quartile deviations – Mean deviations – Standard deviations and coefficient of variations. Comparison of various – measures of dispersion – Skewness.

**Unit IV**

Analysis of Time series : Secular trend, seasonal fluctuations – Cyclical and Random fluctuation – trend analysis – Index Numbers : Simple and Weighted – Fixed and chain – Consumer and cost of Living – Mathematical tests of consistency.

**Unit V**

Correlation : Degrees of correlation –Causation and Correlation – Linear Regression – Simplified calculation of regression lines – Application in Business- Rank correlation –concurrent.

**Text**

C.B.Gupta - AnIntroduction to statistical methods -Vikas Publications

**Reference**

Dr. D. Joseph Anbarasu - Business Statistics - Learntech Press  
Navanitham - Business Statistics - Jai Publishers  
J K Sharma - Business Statistics -Pearson education  
P R Vittal - Business Statistics -Margham publications

**SEMESTER – III**  
**ADVANCED ACCOUNTING**

**Core V**  
**Credit: 5**

**Code:U16CC303**  
**Hours per week: 5**

**Objectives**

At the end of the course students shall be enable to understand partnership accounts, branch & departmental accounts and apply the same in the real business world.

**Unit I**

Partnership accounts – Essential characteristics of partnership – Final accounts – adjustments after closing the accounts – Fixed and Fluctuating capital - Goodwill

**Unit II**

Admission – Retirement – Death of a partner- Joint Life Policy.

**Unit III**

Amalgamation of partnership firm – Dissolution of partnership firm – Modes of dissolution of a firm – Accounting entries - insolvency of partners – Sale of a firm to a company – Gradual realization of assets and piece meal distribution.

**Unit IV**

Branch accounts – Dependent branch – Debtors system – Stock and Debtors system – Final accounts system – wholesale branch – Independent branch.

**Unit V**

Departmental accounts – methods of accounting – joint expenses – Inter departmental transfers - Insurance Claims – Loss of Stock & Loss of Profit.

**Text**

Jain and Narang - Advanced Accountancy-Kalyani Publications

**Reference**

Dr. S. Ganesan and S.R. Kalavathy - Financial Accountitng - Thirumalai Publications

R.L.Gupta and Radhasamy - Advanced Accountancy –Sultan Chand & Sons

P.C.Tulsian - Financial Accounting – SChand

**SEMESTER – III**  
**QUANTITATIVE TECHNIQUES**

**Elective: I**  
**Credits: 3**

**Code : U16CC304**  
**Hours per week: 4**

**Objectives**

At the end of the course, students shall be able to apply the techniques of Operations research in solving complex issues of business.

**Unit I**

Operation research – Origin and development – Role in decision making characteristics – Phases – General approaches – Linear programming problem – Applications and limitations formulation of LPP- graphical solution – Simplex Method ( excluding dual problem )

**Unit II**

Transportation problem – North West corner method – Least cost method - Vogle's approximation method – Moving towards optimality - Stepping stone & MODI methods - Assignment problem.

**Unit III**

Game Theory - Simulation

**Unit IV**

Replacement decisions – Replacement policy without change in money value Replacement of items that fail completely ( group replacement ) simulation Application in finance and accounting. Decision analysis – EMV criterion – EOL and EVPI

**Unit V**

Decision tree analysis - PERT – CPM – Construction of network diagram – Simple CPM calculations Application in finance and accounting .( Excluding crash )

**Text**

P. R. Vittal - Operation Research- Margham Publications

**Reference :**

1. Dr.D.JosephAnbarasu - Operation Research – Learn Tech press
2. V.K.Kapoor - Operations Research – Sultan Chand & Sons
3. P.C.Tulsian& Vishal Pandey - Quantitative techniques- Pearson Education

**SEMESTER – III**  
**INTERNET AND WEB DESIGNING**

**Allied : III**  
**Credit: 5**

**Code:U16CCPY5**  
**Hours per week: 5**

**Objectives**

At the end of the course students will be able to create web pages and to access to practical applications of internet.

**Unit I**

Internet basics – Internet Address – Domain names – Browsers search Engines – Connecting to the Internet – Installing and configuring a modem – Creating a connection profile – Changing the default connection.

**Unit II**

Working with E-mail – Running on E-mail program – Sending, reading, replying, deleting and exiting mail – Sending files via E-mail – Attaching a signature – Managing an address book.

**Unit III**

Introduction to HTML – Information file creation – Web Server, Web client/Browser – HTML – Commands – Title – Footer – Paragraph breaks – Line breaks – Heading style – Text Style – Spacing – Centering – Font size and Colour.

**Unit IV**

List – Types of List – Adding graphics to HTML document – Using width, head alternative attributes – Tables – Header rows – Data rows – Caption tags – Cells spacing – BG colour – Rows span – Cols pan attributes – Links – Internal and external document reference Images as per hyper links.

**Unit V**

Introduction to DHTML – Cascading style – Colour background – Attributes – Text attributes Border attributes – Marginal related attributes – List attributes – Class: external style sheet.

**Text**

Maureen Adams and Sherry Bonelli - Internet Complete- BPB Publications

**Reference**

IvanBayross -Web enabled commercial applicationdevelopment using HTML, DHTML, JAVA SCRIPT, Perl CGI- BPB Publications

**(Theory and Practical)**

**SEMESTER -III**  
**OFFICE AUTOMATION**

**SBEC: I**  
**Credits – 3**

**Code:U16CCPS1**  
**Hours per week: 2**

**Objectives**

At the end of the course students shall have understanding of basic Office Automation concept and MS Office.

**Unit - I**

Office Automation: Introduction – Information – Nature of Office work – Functions of an Office – Office Communications – Services of an Office – Need for office automation – Summary of Office Automation.

**Unit – II**

MS-WORD - Text Manipulations-Usage of Numbering, Bullets, Tools and Headers. Usage of Spell Check and Find and Replace -Text Formatting - Picture Insertion and Alignment-Creation of Documents Using Templates Creation of Templates-Mail Merge Concept-Copying Text and Picture From Excel-Creation of Tables, Formatting Tables-Splitting the Screen-Opening Multiple Document, Inserting Symbols in Documents

**Unit – III**

MS-EXCEL-Creation of Worksheet and Entering Information-Aligning , Editing Data in Cell-Excel Function (Date , Time, Statistical, Mathematical, Financial Functions)-Changing of Column Width and Row Height (Column and Range of Column)-Moving, copying, Inserting and Deleting Rows and Columns-Formatting Numbers and Other Numeric Formats-Drawing Borders Around Cells-Creation of Charts Raising Moving-Changing Chart Type -Controlling the Appearance of a Chart

**Unit -IV**

MS - POWER POINT - Working With Slides-Creating, saving, closing presentation – Adding Headers and footers -Changing slide layout - Working fonts and bullets-Inserting Clipart - Working with Clipart - Applying Transition and animation effects - Run and Slide Show

**Unit – V**

MS Access: Introduction to Access – Creating a Simple Database and Tables – Entering and Editing Data – Finding, Sorting and Displaying Data.

**Text**

Taxali, R.K- PC Software for WINDOWS Made Simple- Tata McGraw Hill

**Reference**

Sanjay Saxena - A First Course in Computers- Vikas Publications

**(Practicals only)**

**SEMESTER – III**  
**INTRODUCTION TO ACCOUNTANCY**

**NMEC : I**  
**Credit: 2**

**Code : U16CC3E1**  
**Hours per week : 2**

**Objectives**

At the end of the course students shall have an understanding of basic accounting concepts and shall have acquired skills in preparing various accounts.

**Unit I**

Introduction – Meaning of Accounting, accountancy, Book keeping – Differences and Relationship – Concepts – conventions – Accounting terms – Difference between single entry and Double entry – Accounting.

**Unit II**

Principles of double entry – Journal – Recording the transactions in the books of Prime entry – Relation between Journal and Ledger.

**Unit III**

Ledger – sub divisions of Ledger – Ledger posting and preparation of Trial Balance.

**Unit IV**

Trial Balance – Meaning – Differences between Trial Balance and Balance Sheet – items to be debited and credited in the Trail Balance – Preparation of Trial Balance without Ledger.

**Unit V**

Capital and Revenue expenditure – Capital and Revenue Incomes – preparation of Manufacturing Account – Final Accounts without Adjustments.

**Text**

Principles of Accountancy – K.L. Nagarajan, N. Vinayagam, P.L. Mani – Schand

**Reference**

Principles of accountancy –Dalston L. Cecil, Jenitra L. Merwin – Learntech Press



**SEMESTER – IV**  
**COST ACCOUNTING**

**Core VI**  
**Credit: 4**

**Code:U16CC405**  
**Hours per week: 5**

**Objectives**

The student shall be able to understand the basic principles of cost accounting and appreciate the utility of costing in industries.

**Unit I**

Definition, Scope, nature of cost accounting – Cost concepts – Classifications – Objectives and advantages – demerits of cost accounting – Methods and techniques – Cost units – Cost centres – Cost sheets.

**Unit II**

Material cost – purchase procedures – stores procedure – Receipts and issue of materials – Stores organization and layout – Inventory control – Levels of stock, perpetual inventory, ABC analysis, EOQ – Stores Ledger – Pricing of materials issues, FIFO, LIFO, simple and weighted average.

**Unit III**

Labour cost – Time recording and time booking – Methods of remuneration and incentive scheme – overtime and Idle time – Labour turnover types, causes and remedies.

**Unit IV**

Overheads – Collection, Classification, Allocation, Apportionment, Absorption – Recovery Rates – Over and Under Absorption – Activity Based Costing – Cost sheet and Cost Reconciliation Statement.

**Unit V**

Methods – Contract costing – Process costing ( Normal loss, Abnormal loss and gains ) – excluding equivalent production Concepts.

**Text**

Jain & Narang – Cost Accounting – Kalyani Publications

**Reference**

1. S.N.Maheswary - Cost Accounting– Sultan Chand& Sons
2. Bhagavathi and Pillai - Cost Accounting – Sultan Chand & Sons

Theory – 25 %, Problem - 75 %

**SEMESTER – IV**  
**COMMERCIAL LAW**

**ELECTIVE II**  
**Credit: 3**

**Code:U16CC4:1**  
**Hours per week: 4**

**Objectives**

At the end of the course, students shall be able to learn the Fundamentals of laws pertaining to ordinary contracts and special contracts.

**Unit I**

Introduction – Scope, Growth and Source. Nature and kinds of Contracts - Void, Voidable and Valid agreement – Contingent Contract - Essential Elements – Offer and Acceptance.

**Unit II**

Consideration - Capacity of Parties – Free Consent – Legality of Object – Void contracts.

**Unit III**

Performance of contracts – Discharge of contracts – Remedies for Breach of contract. Quasi contracts.

**Unit IV**

Special contracts : Indemnity and Guarantee – Bailment and Pledge – Agency.

**Unit V**

Sale of Goods Act 1930 – Difference between Sales and other disposition of goods – Conditions and Warranties – Transfer of property in and title of goods – Rights of unpaid seller.

**Text**

N.D.Kapoor - Essentials of Mercantile Law- SultanChand& Sons

**Reference**

K.R.Bulchandani - Business law for management – Vikas Publications

Tulsian P. C - Business Law - SChand

**SEMESTER – IV**  
**JAVA PROGRAMMING**

**ALLIED IV**  
**Credit: 5**

**Code : U16CCPY6**  
**Hours per week: 5**

**Objectives**

At the end of the course, students shall be able to write programs under java and practice various applications of java.

**Unit - I**

Introduction to Java - Features of Java - Object Oriented Concepts - Data Types - Variables - Arrays - Operators - Control Statements-Input and output-Scanner and System class-print(),println(), and printf() methods.

**Unit - II**

Classes - Objects - Constructors - Overloading method - Access Control - Static and fixed methods - Inner Classes - String Class - Inheritance - Overriding methods - Using super- Abstract class - Type Wrapper classes for primitive types- Autoboxing and Auto Unboxing - Recursion.

**Unit - III**

Packages - Access Protection - Importing Packages - Interfaces - Exception Handling - Throw and Throws - Thread - Synchronization - Runnable Interface - Inter thread Communication - Multithreading - I/O Streams - File Streams - Applets - Introduction to Java API packages(java.lang and java.util)

**Unit - IV**

GUI components - Common GUI Event types and Listener Interfaces - JoptionPane - JLabel, Jtextfield, JButton, JCheckBox, JTextarea, JComboBox, JList, JPanel - Mouse Event Handling - Adapter Classes - Key Event Handling.

**Unit - V**

Layout Managers - Flowlayout, BorderLayout, GridLayout - Graphics and Java 2D - Graphics contexts and Graphics objects - Color control - Font Control - Drawing Lines, Rectangles and Ovals - JSlider - Using menus with Frames.

**Text**

C.Muthu -Programming in Java – Tata Mcgraw Hill

**Reference**

Deitel & Deitel- Java How to Program - Prentice Hall

**(Theory and Practical)**

**SEMESTER – IV**  
**PRINCIPLES OF MANAGEMENT**

**SBEC : II**  
**Credit : 2**

**Code : U16CC4S2**  
**Hours per week: 2**

**Objectives**

The student shall be able to get acquainted with the basic principles of Management.

**Unit I**

Management: Definition – Nature – Function Management Vs Administration.

**Unit II**

Planning : Nature – process – types- Merits and Demerits – MBO.

**Unit III**

Organizing – nature – Departmentation – Span of control Delegation – Centralization – Decentralization –Line and Staff organization. Committee form of organization.

**Unit IV**

Directing : General principles – importance and techniques – Motivation –Theories – Leadership : Meaning – Styles – Communication.

**Unit V**

Coordination :Meaning and Principle - Controlling and its Processes.

**Text**

C.B.Gupta - Business management – Sultan Chand & Sons

**Reference**

P.C. Tulsian Vishal Pandey- Business Organisation and Management– Pearson Education

L.M.Prasad - Principles of Management – Sultan Chand & Sons

**SEMESTER – IV**  
**PRINCIPLES OF COMMERCE**

**NMEC II**  
**Credit: 2**

**Code : U16CC4E2**  
**Hours per week: 2**

**Objectives**

At the end of the course, students shall be able to appreciate the various principles that govern the applications of commerce and Trade.

**Unit I**

Business – Characteristics, Divisions. Commerce – Definition, Importance, Objectives, Qualities of a good business man, Business and Economic systems – Capitalism, Socialism, Communism and Mixed Economy.

**Unit II**

Management - definitions , Levels, functions. Planning – Nature, types. Organizing – Importance, Principles, Types. Staffing – Features and Principles of Direction. Leadership – Types of leaders, Qualities of a good leader. Communication – Elements , types.

**Unit III**

Recruitment – Methods, procedures for recruitment. Training – Need , types, methods.

**Unit IV**

Marketing concept, Marketing functions, Marketing Mix. Marketing Research.

**Unit V**

Social responsibilities of a Business firm, Public enterprise – Objectives, Problems. Public utilities – Economic characteristics , Special problems, Ownership and Management of public utilities.

**Text**

Y.K.Bhushan-Fundamentals of Business Organization& Management -Sultan Chand & Sons

**Reference**

C.B.Gupta – Business Organization and management - Sultan Chand & Sons

**SEMESTER – V**  
**INCOME TAX LAW AND PRACTICE**

**Core VII**  
**Credit: 5**

**Code : U16CC506**  
**Hours per week : 6**

**Course Objectives**

Students will be able to :

1. Get familiar with the concept of Taxation and the various terminologies in Taxation
2. Identify the residential status of various types of assesses .
3. Spell out the rules of Incidence to find the Total income on the basis of the residential status
4. Gain knowledge on different sources of Income.
5. Become aware of exempted incomes
6. Acquire an in-depth knowledge in calculating taxable income under different heads of income
7. Determine the allowable deductions for individual taxpayers.
8. Analyse the assessment procedure.

**Unit I**

Introduction : Basic concepts – agricultural income – Capital and Revenue – Residential Status and incidence of tax – exempted incomes.

**Unit II**

Computation of income – Salaries : Salary - meaning – basis of charge – different forms – profits in lieu of salary – allowances ( taxable and not taxable ) – Tax treatment of provident fund - permissible deductions – tax liability

**Unit III**

Computation of income – House property – Basis of charge – determination of Annual Value – income from let out and self occupied house property – deductions available u/s 24.

**Unit IV**

Income chargeable to tax – Profits and Gains of Business or Profession : Meaning of business or profession – Concept of income – constituents of income – general principles regarding deductions – deductions u/s 30,31,32,and 35 – Specific deductions – valuation of stock.

## **Unit V**

Income chargeable to tax – capital gains and other sources : Capital gains : basis of charge – transfer – capital asset – deemed transfer – transfer not regarded as transfer – computation of short and long term capital gains – indexed cost of acquisition and improvement – exemptions u/s 54,54B,54D,54EC,54ED,54F,54G and 54H.

Other sources : General incomes u/s 56 ( 1) – Rent, Royalties , University remuneration, Family pension, subletting etc – Special incomes u/s 56 ( 2) – dividend, winning from lotteries, interest on securities etc. – Deductions expressly disallowed –

### **Text**

Vinod Singhanian - Students guide to income tax – Taxman Publications

### **Reference**

Gaur and Narang - Income tax, law and practice-Kalyani Publications

Dinkar Pagare - Law and practice of income tax- Sultan Chand & Sons

**Theory – 25 %, Problems – 75 %**

**SEMESTER – V**  
**CORPORATE ACCOUNTING**

**Core VIII**  
**Credit : 5**

**Code : U16CC507**  
**Hours per week: 6**

**Course Objectives**

Student will be able to

1. Understand the basic concepts and workings of various aspects of company accounts
2. Interpret issue and redemption of shares and Debentures
3. Identify the pre and post incorporation profit or loss
4. Know the concept of Redemption of Preference shares and debentures
5. Understand the accounting process of Amalgamation and internal reconstruction
6. Familiar with preparation of Final accounts of Companies
7. Deal with holding company accounts
8. Learn the working of liquidation and its procedure

**Unit I**

Issues of shares – Allotment – Forfeiture – Reissue of shares – Buy back of shares – Redemption of preference shares – Underwriting of shares.

**Unit II**

Issue of Debentures at Par, Discount and Premium – Redemption of Debentures – Methods – Sinking fund methods – Purchase of own debentures in open market.

**Unit III**

Profit prior to incorporation – Accounting for amalgamation in the nature of purchase and merger – Internal reconstruction for sums.

**Unit IV**

Accounting for holding companies with one subsidiary only – Inter company Owings except issue of bonus shares and dividends – Consolidated balance sheet – Valuation of shares

**Unit V**

Final accounts of joint stock companies excluding computation of Managerial remuneration – Liquidator's final statement – Statement of affairs.



**Text**

Hanif and Mukerjee - Modern Accountancy II- Tata Mcgraw Hill

**Reference**

Gupta and Radha - Advanced Accountancy. S.Chand

Dr. S. Ganeson S.R.Kalavathy - Corporate Accounting, Thirumalai Publication

Shukla Grewel and Gupta - Advanced Accounts II, Sultan Chand & Sons

**SEMESTER – V**  
**COMPUTERS IN BUSINESS**

**Core IX**  
**Credit: 5**

**Code : U16CCP08**  
**Hours per week : 6**

**Objectives**

At the end of the course, students shall be able to initiate, operate and maintain computerized accounts of business concern using Tally accounting software as per the version in the use.

**Unit I**

Fundamentals of Computerized accounting – Computer accounting Vs Manual accounting. Architecture and customization of Tally – Features of Tally – Configuration of Tally – Tally screen and menu.

**Unit II**

Creation of company – Group – Editing and deleting ledgers. Creation of ledgers – Editing and deleting ledgers. Introduction to voucher entries – Payment voucher – Contra voucher – Journal voucher – Editing and deleting vouchers.

**Unit III**

Introduction to inventories – Creation – Configuration and features of stock item – Editing and deleting – Usage of stock in voucher entry – Purchase orders – Stock vouchers.

**Unit IV**

Introduction to cost – Creation of cost categories – Creation of cost centres – Editing and deleting – Usage of cost category and cost centres in voucher entry.

**Unit V**

Generating and printing reports in detailed and condensed format – Day book – Balance sheet – Trial Balance – Profit and Loss account – Ratio analysis – Cash flow statement – Fund flow statement – Cost centres report – Inventory report – Bank reconciliation statement. - VAT.

**Text**

K.K.Nandhani-Implementing tally 9.0 - BPB Publishers

Tally Note Book -Work book and study material - Teaching Staff from the department

**Reference**

Narmata Agarwal – Tally – Dreamtech press

**(Practicals only)**

**SEMESTER – V**  
**HUMAN RESOURCE MANAGEMENT**

**ELECTIVE III**  
**Credit: 5**

**Code : U16CC5:1**  
**Hours per week: 5**

**Objectives**

At the end of the course, students shall be able to appreciate the role of management in personnel functions and in maintenance of personnel of an organisation.

**Unit I**

Human Resource Management – Definition – Personnel principles and policies.

**Unit II**

Human Resource Planning – Characteristics – Need for Planning – HRP process – Job Analysis – Job Design – Job description – Job specification.

**Unit III**

The Selection Process – Placement and Induction – Training and Development – Promotion – Demotions – Transfers – Separations.

**Unit IV**

Wage and Salary Administration – Fringe benefits – Job evaluation systems.

**Unit V**

Employee maintenance and integration – Welfare and Safety – Accident Prevention – Employee motivation – Morale – Need and Measures industrial social work.

**Text**

Edwin Flippo - Personnel Management – Mcgraw Hill

**Reference**

Biswanath Ghosh- Human Resource Development and Management - Vikas Publication

Dale Yoder and Paul Standohar - Personnel Management and Industrial Relations – Prentice hall

**SEMESTER – V**  
**ENTERPRISE RESOURCE PLANNING**

**Elective : III**  
**Credit: 5**

**Code : U16CC5 : 2**  
**Hours per week : 5**

**Course Objectives**

Students will be able to

1. Enhance the student knowledge in basic ERP concepts
2. Gain the knowledge of different technologies used in ERP
3. Understand the concepts of ERP manufacturing perspective and ERP module
4. Acquire the knowledge of different tools used in ERP
5. Understanding and find solution to the Dominance property.
6. Acquire knowledge and implement the ERP life cycle
7. Known about the International and Indian software for ERP.

**Unit I**

**Enterprise Resource Planning –Introduction**

Introduction and Concepts: Networks and commercial transactions – Internet and other novelties; networks and electronic transactions today, Model for commercial transactions; Internet environment – internet advantage, worlds wide web and other internet sales venues; Online commerce solutions ERP –meaning - Need - Advantages Growth - Business Intelligence.

**Unit II**

**ERP and Related Technologies**

Business process Reengineering (BPR) - Management Information System (MIS)- Decision Support Systems (DSS) - Executive Support Systems (ESS) - Data Warehousing, Data Mining -Online Analytical Processing (OLTP) - Supply Chain Management (SCM)- Customer Relationship Management (CRM).

**Unit III**

**ERP Modules and Vendors**

Finance - Production planning, control & maintenance -Sales & Distribution  
Human Resource Management (HRM) - Inventory Control System Quality  
Management  
ERP Market.

## **Unit IV**

### **ERP Implementation Life Cycles**

Evaluation and selection of ERP package -Project planning Implementation team training & testing -End user training & Going Live Post Evaluation & Maintenance.

## **Unit V**

### **ERP Market**

Marketplace – Dynamics – SAP AG – Oracle – PeopleSoft – JD Edwards – QAD Inc – SSA Global – Lawson Software – Epicor – Intuitive.

### **Text**

Alexis Leon - Enterprise Resource Planning – McGraw Hill

### **Reference**

Alexis Leon - ERP demystified- Tata McGraw Hill

V &N.K..K. Garg Venkitakrishnan -ERP Ware: ERP Implementation Framework – Prentice Hall

V &N.K..K. Garg Venkitakrishnan -ERP Concepts and Planning –Prentice Hall

**SEMESTER – V**  
**FINANCIAL MANAGEMENT**

**ALLIED V**  
**Credit : 4**

**Code : U16CC509**  
**Hours per week : 5**

**Objectives**

At the end of the course, students shall be able to learn the concepts of Financial Management and shall be able to identify problems in financing areas of the company and solve them.

**Unit I**

Meaning and Scope of Financial Management- Environment of Finance – The time value of Money – Risk and Return – Valuation of Securities.

**Unit II**

Working capital management – Working capital policy – cash management – Credit management – inventory management.

**Unit III**

Capital Budgeting – Basics of Capital Budgeting – Cost of Capital : Cost of equity- Cost of debentures – Cost of preference shares – Cost of other sources of capital.

**Unit IV**

Capital structure and dividend policies – capital structure and cost of capital – planning the capital structure – Dividend policy and share valuation – Long term financing – Sources of long term finance – basics of stock market in India and other financial institution.

**Unit V**

Leverages – Operating leverages – Financial Leverages – Total Leverage – Financial planning and budgeting.

**Text**

Prasanna Chandra – Fundamentals of Financial Management -Tata McGraw Hill

**Reference**

Joseph Anbarasu and N Janakiraman – Financial and Invest Management- Sultan Chand& Sons

M.Y.Khan and P.K.Jain – Fundamentals of Financial Management-Tata McGraw Hill

**Theory – 25%, Problems – 75 %**

**SEMESTER – V**  
**SOFT SKILLS**

**SBEC III**  
**Credit: 3**

**Code : U16CC5S3**  
**Hours per week: 2**

**Course Objectives**

The students will be able to

1. Encourage for an all-round development on need and importance of soft skills.
2. Develop effective presentation and motivation skills.
3. Seek knowledge and techniques to effectively tackle the interview process and use mock situations to develop awareness on interviewing techniques to prepare for future interviews.
4. Organise group discussion process to evaluate thinking skills, listening abilities and communicating individual thoughts.
5. Become self-confident by mastering inter-personal skills for enriched relationships.

**Unit I**

Definition – Need for Soft Skills – Skills for Success

**Unit II**

Presentation Skills – Motivation.

**Unit III**

Facing Interview – Handling Stress in Interviews – Preparation – Performance in Interviews – Mock Interview.

**Unit IV**

Group Discussion – Dynamics of Group Discussions – Need – Content and Process of Group Discussion.

**Unit V**

Inter Personal Skills – Acquiring skills for understanding people for enriched relationship.

**Reference**

Teaching Material to be given by the faculty.

**SEMESTER – VI**  
**BUSINESS MATHEMATICS**

**Core X**  
**Credit: 5**

**Code : U16CC610**  
**Hours per week : 6**

**Objectives**

At the end of the course, students shall be able to apply the mathematical tools in solving business problems.

**Unit I**

Number system – Surds and Indices – Logarithm – Simultaneous and Quadratic equations, Arithmetic, Geometrics and harmonic progression.

**Unit II**

Basic concepts – Sub set – Operation of sets – Application. Probability – Probability distributions.

**Unit III**

Limit – Continuity – changes in related variables – Average concept – and marginal concept – Differential coefficient – Standard forms – the techniques of differentiation – Rules – Concept of differential equation – Higher order derivatives – Application in economics.

**Unit IV**

Increasing and Decreasing functions – Maxima and Minima – Application : Integration : Standard forms – Rules - Definite integral – Standard forms method of partial fractions – Integration by parts – Application. ( Simple Integration )

**Unit V**

Basic concept of Matrix – Addition – Scalar Multiplication – Multiplication of a matrix by a matrix – inverse of a matrix – Linear equations and matrix Input output matrix.

**Text**

Navanithan – Business Mathematics – Jai Publishers

**Reference**

V.Sundaresan and S.D. Jeyaseelan- An introduction to Mathematics - S.Chand

P.R.Vittal - Business Mathematics-Margham Publications



**SEMESTER – VI**  
**SOFTWARE ENGINEERING**

**Core XI**  
**Credit: 5**

**Code : U16CC611**  
**Hours per week: 6**

**Objectives**

At the end of the course, students shall be able to develop various programs depending upon the necessity particularly in business activities.

**Unit - I**

Introduction to Software Engineering : Definitions - Size Factors - Quality and Productivity Factors - Managerial Issues - Planning a Software Project : Defining the Problem - Goals and Requirements - Solution Strategy - Planning the Development Process : Various Models - Planning an Organizational Structure - Planning Activities.

**Unit - II**

Software cost estimation : Introduction - Software Cost Factors - Software Cost Estimation Techniques - Stating Level estimation - Estimating Software Maintenance Costs Software Requirements Definition - Software Requirements Specification - Specification Techniques - Languages and Processors for Requirements.

**Unit - III**

Software design - Design concepts - Modules And Modularization Criteria - Design Notations - Design Techniques - Design Considerations - Real Time and Distributed System Design - Test Plans - Milestones, Walkthroughs and Inspections - Design Guidelines Implementation Issues : Structure Loading Techniques - Coding Style - Standards And Guidelines - Documentation Guidelines.

**Unit - IV**

Modern programming Language Features - Type Checking - Separate Compilation - User Defined Data Types - Data Abstraction - Scoping Rules - Exception Handling - Currency Mechanism Verification And Validation Techniques - Quality Assurance - States Analysis - Symbolic Excretion.

**Unit - V**

Unit - Testing And Debugging - System Testing - Formal Verification Software Maintenance - Maintainability - Managerial Aspect Of Software Maintenance - Configuration Management - Source Code Metrics - Other Maintenance Tools And Techniques. B.Com. (Computer Applications):

**Text Books**

Richard Fairley- Software Engineering Concepts -TataMcGrawHill Publications.

**References**

- 1 Rogers Pressman - Software Engineering -Tata McGraw Hill Publications
2. K.K. Aggarwal & Yogesh Singh - Software Engineering Programs Documentation Operating procedures -New Age International Publishers

**SEMESTER – VI**  
**RELATIONAL DATABASE MANAGEMENT SYSTEM**

**Core : XII**

**Credit: 5**

**Code : U17CCP12**

**Hours per week: 6**

**Objective**

At the end of the course student shall be able to develop various data base depending upon necessity particularly in Business activities.

**Unit – I**

Introduction to Database – Evolution of Database systems –Database Administrator – Data Models – Entity Relationship Model, Object Oriented Model, Relational model, Network model, Hierarchical model. Components of DBMS – Hardware, Software, Data, People (or) users, Database. Database Approach objectives – Sharability, Availability, Data Independence, and Data Integrity. Advantages of Database approach – Program Data Independence, Minimal Data redundancy, Improved Data consistency, Improved Data sharing, Enforcement of Standards, Improved Quality. Components of Database Environment – computer aided software Engineering (CASE) tools, Repository, DBMS, Database, Application Sharing – Sharing data Between Functional Units, Sharing Data Between different levels of users, sharing data between different locations, Risks and costs of Database – Organizational conflicts, Development project failure, system failure, Overhead costs, Requirement of skilled people.

**Unit - II**

Fundamentals of Database – Attribute, Entity, object. E-R Model –E.R. Diagram example, strong entity type, weak entity type, Simple attribute, composite attribute, simple Versus Composite Attributes, Multi valued Attributes. Relationship Definition – Degrees of relationship – Unary Relationship, Binary Relationship, Ternary Relationship, specialization – Generalization – Aggregation – relation Data Model – Relations, Null values, Keys, foreign Key – Integrity Constraints – Domain constraints, Entity integrity, Referential Integrity, Operational constraints. Normalization – Meaning of Normalization, uses of Normalization, steps in Normalization, First normal form (1NF), Second normal form (2NF), Third normal form (3NF), Boyce Cod Normal Form (BCNF), Comparisons of BCNF and 3NF. Relational Algebra-Union, Intersection, Difference, Product, Project, Join, Select, divide, assignment. Different types of joins.

**Unit –III**

Structured query language (SQL) – Role of SQL in Database Architecture – Data Schema and Table Definition – Data Manipulation – Database Change operations – Arithmetic operators – Addition (+), Subtraction (-), Division (/), Multiplication (\*), Exponentiation (\*\*), Enclosed operation (). Logical operators – and operator, Or operator, NOT operator, Dual Table in ORACLE – Null value Concepts – aggregate functions or group functions – Nested queries – Correlated Nested Queries – Grouping Data from tables – views or Virtual tables – client server Database systems.

#### **Unit – IV**

File organization and Addressing Methods – Sequential File organization, Indexed sequential file organization, Data file organization, Mapping logical data structures to physical data structures, mapping relational databases, mapping network databases, mapping hierarchical databases. Database administration. Functions of DBA – Schema definition, Storage structure and Access method definition, Schema and physical organization modification, granting of authorization for Data access, integrity constraint specification. Goals of DBA- having knowledge of SQL, having knowledge of operating system, database initialization, able to create database, perform backup methods etc., database security – Authentication, authorization and views, Encryption.

#### **Unit – V**

Need of distributed databases - distributed database system design- distributed query processing – Data integrity – Two phase commit protocol, distributed locking, time stamping, distributed two phase locking. Client server systems – Two tier architecture.

DBMS functions and Capabilities – DBMS feature requirements –Mandatory, important, optional, Unnecessary, Undesirable. Implementation issues – database administration, database testing, preparing users for change, loading database, database maintenance.

**Lab Work :** Developing simple queries using SQL.

#### **Text**

McFadden , Jeffrey Hofer, Mary - Modern Database Management – Prentice Hall

#### **Reference**

1. BipinC.Desai- AnIntroduction to Database System – West Publications
2. Gary Hansen & James Hansesn - Database Management & Design - Prentice Hall
3. F-Korth and Sudershan - DBMS - TataMcGrawHill

#### **(Theory and Practicals)**

**SEMESTER – VI**  
**MANAGEMENT ACCOUNTING**

**Core XIII**  
**Credit: 5**

**Code: U16CC613**  
**Hours per week : 6**

**Objectives**

At the end of the course, students shall be able to see the perspective of management accounting and shall be able to apply the techniques of management accounting to a given accounting situation in business.

**Unit I**

Management Accounting - Definitions – Objectives – Scope and functions – Advantages and limitations – Management accounting – principles – Installation of management accounting systems. Distinction between management accounting and financial accounting. Management accounting Vs Cost accounting – Management Accounting functions.

**Unit II**

Financial statements – Analysis and interpretation of financial statements – Techniques of financial analysis – Limitation of financial analysis.

Meaning – Classification of ratios – Advantages and limitations of ratio analysis – computation of ratios.

**Unit III**

Meaning – Uses of fund flow statement – Distinction between fund flow statement and income statement – Parties interested in fund flow statement – Limitations of fund flow statement – Preparation of fund flow statement.

Meaning – preparation of Cash flow statement – Difference between cash flow analysis and fund flow analysis – Utility of cash flow analysis and limitations of cash flow analysis.

**Unit IV**

Definitions of marginal costing – Features – Merits and demerits of marginal costing – CVP analysis. Meaning - Merits and demerits – Construction of break even chart – Assumptions underlying CVP analysis and break even chart – Managerial uses of BEP analysis – Marginal costing vs Absorption costing.

**Unit V**

Definition – Meaning – advantages and disadvantages of budgetary control – Installation of budgetary control system – requirements of a good budgetary control system – Classifications of budgets (production, sales and cash– Zero base budgeting.

Definition – advantages – limitations – distinction between budgetary control and standard costing – estimated cost Vs standard cost – Preliminary steps for establishing a system of standard costing – variance in standard costing – meaning – types of variance ( material and labour )

**Text**

Jain and Narang – Management Accounting – Kalyani Publications

**Reference**

S.N.Maheswari – Management Accounting – Sultan Chand & Sons

**Theory - 25 %, Problems - 75 %**

**SEMESTER – VI**  
**CYBER LAW**

**Allied :VI**  
**Credit: 3**

**Code: U16CC6:1**  
**Hours per week: 6**

**Objective**

At the end of the course students shall be able to learn a fundamental of Cyber Law and IT Act -2000.

**Unit I**

Cyber Law: Introduction- Concept of Cyberspace-E-Commerce in India-Privacy factors in E-Commerce-cyber law in E-Commerce-Contract Aspects.

**Unit II**

Security Aspects: Introduction-Technical aspects of Encryption-Digital Signature-Data Security. Intellectual Property Aspects: WIPO-GII-ECMS-Indian Copy rights act on soft propriety works-Indian Patents act on soft propriety works.

**Unit III**

Evidence Aspects: Evidence as part of the law of procedures –Applicability of the law of Evidence on Electronic Records-The Indian Evidence Act1872.Criminal aspect: Computer Crime-Factors influencing Computer Crime- Strategy for prevention of computer crime-Amendments to Indian Penal code 1860.

**Unit IV**

Global Trends- Legal frame work for Electronic Data Interchange: EDI Mechanism-Electronic Data Interchange Scenario in India

**Unit V**

The Information Technology Act 2000-Definitions-Authentication of Electronic Records-Electronic Governance-Digital Signature Certificates.

**Text**

Suresh T Viswanathan - The Indian Cyber Law - Bharat Law House

**Reference**

Vivek Sood - Cyber law simplified – Tata McGraw hill publications.