

B.C.A. Part- I

Subject Name : Introduction to Information Technology

Subject Code:BCA101

S.NO.	MONTH	NAME OF TOPIC
1	AUGUST	UNIT - I Computer Basics: A Simple Model of a Computer, Characteristics of Computers, Problem-solving Using Computers, Algorithms. Generations and classification of Computers. Data Representation: Representation of Characters in computers, Representation of Integers, Representation of Fractions, Hexadecimal Representation of Numbers, Decimal to Binary Conversion, Error-detecting codes. Input & Output Devices: Description of Input Units, Other Input Methods, Output Units.
2	SEPTEMBER	UNIT - II Computer Memory: Memory Cell, Memory Organization, Read Only Memory, Serial Access Memory, Physical Devices Used to Construct Memories, Magnetic Hard Disk, floppy Disk Drives, Compact Disk, Read Only Memory, Magnetic Tape Drives. Processor: Structure of Instructions, Description of a Processor, A Machine Language Program
3	OCTOBER	UNIT - III Binary Arithmetic: Binary Addition, Binary Subtraction, Signed Numbers, Two's Complement Representation of Numbers, Addition/Subtraction of Numbers in 2's Complement Notation, Binary Multiplication, Binary Division, Floating Point Representation of Numbers, Arithmetic Operations with Normalized Floating Point Numbers. Computer Architecture: Interconnection of Units, Processor to Memory communication, I/O to Processor Communication, Interrupt Structures, Multiprogramming, Processor Features, Virtual Memory.
4	NOVEMBER	SEMINAAR, ASSIGNMENT , MID TERM -I (UNIT:1,2)
5	DECEMBER	UNIT-IV Software Concepts: Types of Software, Software: Qualities & Attributes, Programming Languages: types and differences Operating Systems: Definition, O.S. functions and O.S. types : brief introduction. A Brief History of: Linux, MS- DOS, Windows Operating System.
6	JANUARY	UNIT - V Internet: Network, World Wide Web, Uniform Resource Locator, Web Browsers, IP Address, Domain Name, Internet Service Providers, Introduction to Internet Security, Internet Requirements, Web Search Engine, Net Surfing, Internet Services, Intranet and Extranet, how to connect with internet.
7	FEBRUARY	ASSIGNMENT ,SEMINAAR, MID TERM -2
8	MARCH	END-TERM EXAM/ REVISION

B.C.A. Part- I
Subject Name : Basic Mathematics
Subject Code:(BCA-102)

S.NO.	MONTH	NAME OF TOPIC
1	AUGUST	UNIT - I Sequences and Series: AP, GP and HP, Arithmetic–Geometric- Harmonic means between two numbers (excluding Arithmetic- Geometric series). Logarithms: definition, Laws regarding product, quotient, exponent and change of base.
2	SEPTEMBER	UNIT - II SETS: Sets, subsets, equal sets, null set, universal set, finite & infinite sets, open & closed sets etc., operations on Sets, partition of sets, Cartesian product.
3	OCTOBER	UNIT - III RELATIONS AND FUNCTIONS: relation, properties of relations, equivalence relation, equivalence relation with partition , partial order relation, pigeonhole principle, function, domain and range, onto, into and one-to-one functions, composite functions, inverse functions.
4	NOVEMBER	SEMINAR, ASSIGNMENT , MID TERM -I
5	DECEMBER	UNIT-IV DIFFERENTIATION: Derivative, derivatives of sum, differences, product & quotients, derivatives of composite functions, logarithmic differentiation, mean value theorem, expansion of functions,
6	JANUARY	UNIT - V Basic concepts of Graph Theory: Vertices, edges, degree, paths, circuits, cycles, complete graphs and trees. Multi-graphs, weighted graphs and directed graphs, Adjacency matrix of a graphs. Connected and disconnected graphs.
7	FEBRUARY	ASSIGNMENT ,SEMINAR, MID TERM -2
8	MARCH	END-TERM EXAM/ REVISION

B.C.A. Part-I

Subject Name : Problem Solving Through C-Programming

Subject Code:BCA103

S.NO.	MONTH	NAME OF TOPIC
1	AUGUST	UNIT- I Algorithm and algorithm development: Definition and properties of algorithm, flow chart symbols, example of simple algorithms. Program design, errors: syntax error and semantic error, debugging, program verification, testing, documentation and maintenance. Variable names, data type and sizes, constants, declarations, arithmetic operators, relational and logical operators, type conversions, increment and decrement operators, bitwise operators, assignment operators and expressions, precedence and order of evaluation, standard input and output statements.
2	SEPTEMBER	UNIT- II Control Flow: Statements and blocks, if-else, nested if, switch, looping statement: while, for, do-while, break and continue, go-to and labels. Arrays : declarations, integer and character array, reading and writing an array, one and two dimensional array, operations on arrays.
3	OCTOBER	UNIT – III Functions and Program Structure: Basics of function, function definition and declaration, external variables, scope rules, header files, static variables, register variables, block structure, initialization, recursion, the C preprocessor. Pointer : Pointers and addresses, pointers and function arguments, address arithmetic. Character pointers, pointers to pointers, Pointers to functions.
4	NOVEMBER	SEMINAAR, ASSIGNMENT , MID TERM -I
5	DECEMBER	UNIT - IV Structures: Basics of structures, structures and functions, arrays of structures, pointers to structures, self- referential structures, typedef, unions.
6	JANUARY	UNIT - V File Handling: access methods, different file operations and functions, concept of text & Binary files, file I/O, command line argument, formatted file input and output.
7	FEBRUARY	ASSIGNMENT ,SEMINAAR, MID TERM -2
8	MARCH	END-TERM EXAM/ REVISION

B.C.A. Part-I

Subject Name : BUSINESS COMMUNICATION

Subject Code:BCA104

S.NO.	MONTH	NAME OF TOPIC
1	AUGUST	UNIT – I Fundamentals: Meaning of communication, Importance of communication, Communication scope, Process of communication, Communication models and theories, Essentials of good communication - The seven Cs of communication, Factors responsible for growing importance of communication, Channels of communication, Verbal and Non-Verbal communication , Formal and Informal communication , Barriers of communication
2	SEPTEMBER	UNIT – II Written Communication: Objectives of written Communication, Media of written communication, Merits and demerits of written communication, Planning business messages. Writing Letters: Business letters, Office memorandum, Good news and bad news letters, Persuasive letters , Sales letters , Letter styles/ layout.
3	OCTOBER	UNIT – III Report Writing: Meaning & Definition, Types of report (Business report & Academic report), Format of report, Drafting the report, Layout of the report, Essential requirement of good report writing.
4	NOVEMBER	SEMINAR, ASSIGNMENT , MID TERM -I
5	DECEMBER	UNIT – IV Project Presentations: Advantages & Disadvantages, Executive Summary, Charts, Distribution of time (presentation, questions & answers, summing up), Visual presentation, Guidelines for using visual aids, Electronic media (power-point presentation).
6	JANUARY	UNIT – V Arts of Listening: Good listening for improved communications, Art of listening, Meaning, nature and importance of listening, Principles of good listening, Barriers in listening.
8	FEBRUARY	ASSIGNMENT ,SEMINAR, MID TERM -2
9	MARCH	END-TERM EXAM/ REVISION

B.C.A. Part-I

Subject Name : PC Software Packages

Subject Code:BCA105

S.NO.	MONTH	NAME OF TOPIC
1	AUGUST	UNIT – I DOS: Introduction, history & versions of DOS, DOS basics- Physical structure of disk, drive name, FAT, file & directory structure and naming rules, booting process, DOS system files, DOS commands: internal & external.
2	SEPTEMBER	UNIT – II GUI Based OS: Concepts, Features, Structure, Desktop, Taskbar, Start Menu, My Computer, Recycle Bin, Accessories- Calculator, Notepad, Paint, Word-pad, Character Map, Explorer, Entertainment, Managing Hardware & Software- Installation of Hardware & Software, Using Scanner, System Tools, Communication, Sharing Information between programs
3	OCTOBER	UNIT – III Word Processing: Features, Creating, Saving and Opening Documents in Word, Interface, Toolbars, Ruler, Menus, Keyboard Shortcut, Editing, Previewing, Printing & Formatting a Document, Advanced Features of MS Word, Find & Replace, Using Thesaurus, Using Auto- Multiple Functions, Mail Merge, Handling Graphics, Tables & Charts, Converting a word document into various formats like- Text, Rich Text format, Word perfect, HTML etc.
4	NOVEMBER	SEMINAR, ASSIGNMENT , MID TERM -I
5	DECEMBER	UNIT – IV Worksheet: Worksheet basics, creating worksheet, entering into worksheet, heading information, data, text, dates, alphanumeric values, saving & quitting worksheet, Opening and moving around in an existing worksheet, Toolbars and Menus, Keyboard shortcuts, Working with single and multiple workbook, working with formulae & cell referencing, Auto sum, Copying formulae, Absolute & relative addressing, Worksheet with ranges, formatting of worksheet, Previewing & Printing worksheet, Graphs and charts, Database, Creating and Using macros, Multiple worksheets- concepts, creating and using
6	JANUARY	UNIT – V Introduction to Power Point: Creating slide show with animations, Designing Presentations. Case Study of web editing tool and DBMS tool such as: Front Page, Ms-Access Creating & using databases in Access.
8	FEBRUARY	ASSIGNMENT ,SEMINAR, MID TERM -2
9	MARCH	END-TERM EXAM/ REVISION

B.C.A. Part- II

Subject Name : Digital Electronics & Computer Architecture

Subject Code:BCA 201

S.NO.	MONTH	NAME OF TOPIC
1	AUGUST	UNIT-I Overview of electronics: Electronic components-Resistor, capacitor and Inductors, Semiconductor devices: Diodes, transistors (BJT and FET). Integrated circuits, Popular IC packages, Analog vs digital electronics, Transistor as a switch. Boolean algebra: Representation of values and complements, De’Morgans theorem-simplifying expressions.
2	SEPTEMBER	UNIT-2 Logic gates: AND, OR, NOT, XOR, XNOR, NAND, NOR gates and their truth tables, Combining logic circuits for expressions using NAND and NOR gates, Logic circuit families and characteristics, SSI, MSI, LSI and VLSI circuits
3	OCTOBER	UNIT-2 Combinational and sequential circuits: (Simple block diagrams, truth tables and IC packages only required). Adders, decoders, multiplexers, encoder circuits , Flip-flops: RS, clocked RS, JK, D and T flip flops, Master slave flip flops, edge and level triggering, Multivibrators - Astable, Bistable, Monostable, counters-ripple and decade. Registers, latches and Tristate buffers.
4	NOVEMBER	SEMINAAR, ASSIGNMENT , MID TERM -I
5	NOVEMBER	UNIT-3 Building blocks of a computer system: Basic building blocks-I/O, memory, ALU, Control and their interconnections, Control unit and its functions- Instruction-word, Instruction execution cycle, organizational sequence of operation of control registers; controlling of arithmetic operations; branch, skip, jump and shift instructions, ALU components.
6	DECEMBER	UNIT-IV Addressing techniques and registers: Addressing techniques-Direct, immediate addressing; paging, relative, Indirect and indexed addressing. Memory buffer register; accumulators; Registers-Indexed, General purpose
7	JANUARY	UNIT-1V Special purpose; overflow, carry, shift, scratch registers; stack pointers; floating point; status information and buffer registers
8	FEBRUARY	UNIT-V Memory: Main, RAM, static and Dynamic, ROM, EPROM, EAROM, EEPROM, Cache and Virtual memory. Interconnecting System components: Buses, Interfacing buses, Bus formats-address, data and control, Interfacing keyboard, display, auxiliary storage devices, and printers. I/O cards in personal computers. Development of Indian Super Computer ‘PARAM’: History, Characteristics, Strengths, Weakness and basic Architecture.
9	FEBRUARY	ASSIGNMENT , SEMINAR, MID TERM -2
10	MARCH	END-TERM EXAM/ REVISION

B.C.A. Part- II
Subject Name : Database Management System
Subject Code:BCA 202

S.NO.	MONTH	NAME OF TOPIC
1	AUGUST	UNIT:1 Introduction : Purpose of the data base system, data abstraction, data model, data independence, data definition language, data manipulation language, data base administrator, data base users, overall structure.
2	SEPTEMBER	UNIT: 2 ER Model : entities, mapping constrains, keys, E-R diagram, reducing E-R diagrams to tables, generation, aggregation, design of an E-R database scheme.
3	OCTOBER	UNIT: 3 Relational Model : The catalog, base tables and views. Relational Data Objects - Domains and Relations: Domains, relations, kinds of relations, relations and predicates, relational databases
4	OCTOBER	SEMINAR, ASSIGNMENT , MID TERM -I
5	NOVEMBER	UNIT: 3 Relational Data Integrity - Candidate keys and related matters: Candidate keys. Primary and alternate keys. Foreign keys, foreign key rules, nulls. Candidate keys and nulls, foreign key and nulls
6	DECEMBER	UNIT:4 The SQL Language: Data definition, retrieval and update operations. Table expressions, conditional expressions, embedded SQL.
7	JANUARY	UNIT:4 Views: Introduction, what are views for, data definition, data manipulation, SQL support.
8	JANUARY	UNIT:5 File and system structure : overall system structure, file organisation, logical and physical file organization
9	FEBRUARY	UNIT:5 File and system structure : sequential and random, hierarchical, inverted, multi list, indexing and hashing, B-tree index files.
10	FEBRUARY	ASSIGNMENT ,SEMINAR, MID TERM -2
11	MARCH	END-TERM EXAM/ REVISION

B.C.A. Part- II

Subject Name : Fundamentals of Operating Systems

Subject Code:BCA 203

S.NO.	MONTH	NAME OF TOPIC
1	AUGUST	UNIT:1 Introduction: Definition of an operating system, Mainframe, desktop, single user & multi user OS distributed, real-time and handheld OS.
2	SEPTEMBER	UNIT:2 Operating System Structures: System components, operating system services, system calls systems programs, system structure, virtual machines.
3	OCTOBER	UNIT:2 Operating System Structures: systems programs, system structure, virtual machines.
4	NOVEMBER	SEMINAR, ASSIGNMENT , MID TERM -I
5	NOVEMBER	UNIT:3 Process Management: criteria, scheduling algorithms, algorithm evaluation.
6	DECEMBER	UNIT:3 Process Synchronization: The critical section problem, semaphores, classical problems of synchronization.
7	JANUARY	UNIT:4 Memory Management: Swapping, contiguous memory allocation, paging, segmentation, segmentation with paging
8	FEBRUARY	UNIT:5 Virtual Memory: Demand paging, page replacement, allocation of frames, thrashing.
9	FEBRUARY	ASSIGNMENT ,SEMINAR, MID TERM -2
10	MARCH	END-TERM EXAM/ REVISION

B.C.A. Part- II
Subject Name : DATA STRUCTURE
Subject Code:BCA 204

S.NO.	MONTH	NAME OF TOPIC
1	AUGUST	UNIT-1 Introduction: structure and problem solving, algorithmic notation, Data Structure, Algorithms and sub algorithms
2	SEPTEMBER	UNIT-1 Introduction to algorithm analysis for time and space
3	OCTOBER	UNIT-2 Primitive and non primitive data structure concept, representation and manipulation of strings, concept and terminology for non primitive data structure
4	NOVEMBER	SEMINAAR, ASSIGNMENT , MID TERM -I (UNIT:1,2)
5	NOVEMBER	UNIT-2 concept of arrays, stacks, queues. Basic operations on arrays, stacks & queues.
6	DECEMBER	UNIT-3 Linear data structures and their linked storage representation: pointers and linked allocation, linked linear list
7	JANUARY	UNIT-4 singly linked list, application of linked linear lists.
8	FEBRUARY	UNIT-4 Non Linear data structure: Trees, types of trees, Graphs and their representations, applications of graph.
9	FEBRUARY	UNIT-5 Sorting and searching: concept of sorting and searching, selection sort, bubble sort, merge sort, binary search
10	FEBRUARY	ASSIGNMENT ,SEMINAR, MID TERM -2
11	MARCH	END-TERM EXAM/ REVISION

B.C.A. Part-II

Subject Name : Data Communication and Computer Networking

Subject Code:(BCA-205)

S.NO.	MONTH	NAME OF TOPIC
1	AUGUST	UNIT – I Components of a data communication system, model of a data communication, data transmission concepts, digital and analog transmission, serial/parallel data transmission, signal encoding techniques, modulation and modems.
2	SEPTEMBER	UNIT – II Guided and unguided transmission media, Transmission impairments, channel capacity, baud rate, bandwidth, multiplexing techniques, synchronous and asynchronous transmission, simplex, half duplex and full duplex transmission.
3	OCTOBER	UNIT – III Circuit switching, Packet switching and Message switching, Connection oriented and Connection less services, Computer Networks Topologies, networks Classification by their Geography
4	NOVEMBER	SEMINAAR, ASSIGNMENT , MID TERM -I (UNIT:1,2)
5	DECEMBER	UNIT – IV ISO-OSI model of networking, different layers and their functions, networking and Internetworking, Services gateways, bridges, repeaters, routers, Introduction to ISDN, DSL, Difference between OSI & TCP/IP model.
6	JANUARY	UNIT – V Introduction to Internet applications like DNS, FTP, SMTP, SNMP, WWW, HTTP, URL, E-mail, Teleconferencing & Electronic Banking, What is IP & IPv4 vs IPv6, What is USB & Difference between USB 2.0 and USB 3.0 .
7	FEBRUARY	ASSIGNMENT ,SEMINAR, MID TERM -2
8	MARCH	END-TERM EXAM/ REVISION

B.C.A. Part-III Subject Name : Software Engineering
Subject Code:BCA 301

S.NO.	MONTH	NAME OF TOPIC
1	AUGUST	UNIT-1 Introduction to Software Engineering: Definitions - Size Factors - Quality and Productivity Factors - Managerial Issues - Planning a software project : Defining the problem
2	SEPTEMBER	UNIT-1 Developing a Solution Strategy - Planning the Development Process - Planning an Organization structure - Other Planning Activities
3	OCTOBER	UNIT-2 Software Cost Estimation: Software cost factors - Software Cost Estimation Techniques – Staffing level Estimation - Estimating Software Maintenance Costs - The Software Requirements, Specification - Formal Specification Techniques - Languages and Processors for Requirements Specification.
4	OCTOBER	SEMINAAR, ASSIGNMENT , MID TERM -I
5	NOVEMBER	UNIT-3 Software design: Fundamental Design Concepts - Modules and Modularization Criteria – Design Notations - Design Techniques - Detailed Design Considerations
6	DECEMBER	UNIT-3 Real-Time and Distributed System Design - Test Plans - Milestones, walkthroughs, and Inspections.
7	JANUARY	UNIT-4 Implementation issues: Structured Coding Techniques - Coding Style - Standards and Guidelines - documentation guidelines -Type Checking - Scoping Rules - Concurrency Mechanisms
8	JANUARY	ASSIGNMENT ,SEMINAAR, MID TERM -2
9	FEBRUARY	UNIT-5 Quality Assurance - Walkthroughs and Inspections - Static Analysis - Symbolic Execution – Unit Testing and Debugging - System Testing
10	MARCH	UNIT-5 Formal Verification: Enhancing Maintainability during Development - Managerial Aspects of Software Maintenance - Source Code Metrics – Other Maintenance Tools and Techniques.
11	APRIL	END-TERM EXAM/ REVISION

B.C.A. Part-III Subject Name :Visual Programming
Subject Code:BCA 302

S.NO.	MONTH	NAME OF TOPIC
1	AUGUST	UNIT-1 Client Server Basics: Discover Client-Server and Other Computing Architectures, Understand File Server Versus Client-Server Database Deployment, Learn About the Two Tier Versus Three Tier Client-Server Model, Visual Basic Building Blocks and Default Controls: Forms, Using Controls, Exploring Properties, Methods and Events
2	SEPTEMBER	UNIT-1 Introduction To Intrinsic Controls, Working With Text, Working With Choices, Special Purpose Controls, VB Advance Controls: Events, Menu bar, Popup Menus, Tool bar, Message Box, Input Box, Built-in Dialog Boxes, Creating MDI, Working with Menus
3	OCTOBER	UNIT-2 VB Programming Fundamentals and Variables: Introduction to Variables, Variable Declaration, Arrays, Introduction to Constants and Option Explicit Statement, Assignment Statements, Math Operations, Strings, Formatting Functions
4	OCTOBER	SEMINAR, ASSIGNMENT , MID TERM -I
5	NOVEMBER	UNIT-2 Controlling and Managing Program: Control Statements, Loops, Error Trapping, Procedures, Functions, Controlling How Your Program Starts, Introduction to common controls- Tree view, list view, tab strip, Creating and working with control arrays.
6	DECEMBER	UNIT-3 Visual Basic and databases: Understanding the Data Controls and Bound Controls, Introduction to Data Form Wizard, Introducing DAO, Working with Record sets, Record Pointer, Filters, Indexes, Sorts and Manipulation of Records.
7	JANUARY	UNIT-3 Remote and ActiveX Data Objects: Working With ODBC, Remote Data Objects and Remote data Control, Introducing ADO, ADO Data Control.
8	JANUARY	ASSIGNMENT ,SEMINAR, MID TERM -2
9	FEBRUARY	UNIT-4 Using Data Grid Control and ActiveX Data Objects. ActiveX Controls, Extending ActiveX Controls And Classes: Creating, Testing, Compiling, Enhancing and User Drawn ActiveX Controls, Using ActiveX Control Interface Wizard and Property Pages Wizard, Introducing Ambient, Extender Objects, Creating Property Pages, Building Class Modules, ActiveX DLL
10	MARCH	UNIT-5 Client-Server Development Tools: COM, Services Models, Development Tools Included with VB 6, SourceSafe Projects. Reports and Packaging: Data Reports and Crystal Reports, Packaging A Standard EXE Project, VB and Internet: Introduction to VBScript, Tools used with VBScript and VBScript Languages, Introduction to Active Server Pages, ASP Objects.
11	APRIL	END-TERM EXAM/ REVISION

B.C.A. Part- III Subject Name : E-COMMERCE
Subject Code:BCA 303

S.NO.	MONTH	NAME OF TOPIC
1	AUGUST	Unit-I E-commerce: Objectives, advantages and disadvantages, Forces driving E-Commerce, Traditional commerce and E commerce, E-Commerce opportunities for industries.
2	SEPTEMBER	Unit-II E-Commerce Models: Business to consumer, Business to Business, Consumer to Consumer, other models –Brokerage Model, Advertising mode,
3	OCTOBER	Unit-II Aggregator Model, Info-mediary Model, Community Model and value chain Model.
4	OCTOBER	SEMINAAR, ASSIGNMENT , MID TERM -I
5	NOVEMBER	Unit-III Electronic Payment Systems: Special features required in payment systems, Types of E-payment systems, Smart Card, Electronic wallet, E-Cash, E-cheque, credit card
6	DECEMBER	Unit-IV Digital Marketing, E-Customer Relationship Management, E-Supply Chain Management. E-Commerce: An Indian perspective, Digilocker, attendance.gov.in, mygov.in
7	JANUARY	Unit-IV Swachh Bharat Mission, E-Hospital, National Scholarship portal, E-Sampark, UID, various modes of Digital payment of govt. of India.
8	JANUARY	ASSIGNMENT ,SEMINAAR, MID TERM -2
9	FEBRUARY	Unit-V Security Issues in E-Commerce: Security risk of E-Commerce, Types of threats, Security tools and risk management approach
10	MARCH	Unit-V Business Ethics, EDI Application in business. Overview of Cyber security.
11	APRIL	END-TERM EXAM/ REVISION

B.C.A. Part-III Subject Name : Web Technology
Subject Code:BCA 304

S.NO.	MONTH	NAME OF TOPIC
1	AUGUST	Unit I Introduction to Basics of Internet: Concepts of Internet: Domain, IP Addressing, Resolving Domain Names, Overview of TCP/IP and its Services, WWW.
2	SEPTEMBER	Unit II Introduction to HTML, Designing Pages with HTML, Essential Tags, Deprecated Tags, Tags and Attributes, Text Styles and Text Arrangements, Text, Effects
3	OCTOBER	UNIT-II Exposure to Various Tags (DIV, MARQUEE, NOBR, DFN, HR, LISTING, Comment, IMG), Color and Background of Web Pages, Lists and their Types, Attributes of Image Tag
4	OCTOBER	SEMINAAR, ASSIGNMENT , MID TERM -I
5	NOVEMBER	UNIT-III Hypertext, Hyperlink and Hypermedia, Links, Anchors and URLs, concept of navigation, Different Section of a Page and Graphics
6	DECEMBER	UNIT-III Footnote and e-Mailing, Creating Table, Frame, Form and Style Sheet
7	JANUARY	Unit IV DHTML: Dynamic HTML, Document Object Model, Features of DHTML, CSSP (Cascading Style Sheet Positioning) and JSSS (JavaScript assisted Style Sheet), Layers of Netscape, The ID Attribute, DHTML Events.
8	JANUARY	ASSIGNMENT ,SEMINAR, MID TERM -2
9	FEBRUARY	Unit V Web Designing Tools: Front Page Basics , Web Terminologies, Phases of Planning and Building Web Sites, The FTP, HTTP and WAP, Features.
10	MARCH	UNIT-V Front Page Views, Adding Pictures, Backgrounds, Links, Relating Front Page to DHTML.
11	APRIL	END-TERM EXAM/ REVISION

B.C.A. Part-III Subject Name : Programming with JAVA
Subject Code:BCA 305

S.NO.	MONTH	NAME OF TOPIC
1	AUGUST	Unit I An overview of Java: Object oriented programming, Two paradigms, abstraction, the, OOP principles, Java class libraries, variables, arrays
2	SEPTEMBER	unit-I Data types and casting, Operators, operator precedence, Control statements.
3	OCTOBER	Unit II Classes & Objects: Class fundamentals, declaring object reference variable, Introducing methods, constructors, the key word, garbage collection, Overloading methods. Inheritance and polymorphism: super class and subclass, protected members, Relationship between super and sub class
4	OCTOBER	SEMINAR, ASSIGNMENT , MID TERM -I
5	NOVEMBER	UNIT-II Inheritance hierarchy, abstract classes and methods, final methods and classes, nested classes, Type wrappers.
6	DECEMBER	Unit-III String handling: The string constructor, string length, special string operator character extraction, string comparison, searching string, modifying string, data conversion, changing the case of characters, string buffer.
7	JANUARY	UNIT-IV Multithreaded Programming: The Java thread model, the main thread, creating thread, creating multiple thread, using is alive () and join (). Thread priorities, synchronization, Inter thread communications, suspending resuming and stopping thread using multithreading.
8	JANUARY	ASSIGNMENT ,SEMINAR, MID TERM -2
9	FEBRUARY	UNIT-IV Exception handling: Exception handling fundamentals
10	MARCH	Unit-V Introduction to Applets : Applet Fundamentals, using paint method, basic of AWT
11	APRIL	END-TERM EXAM/REVISION