(A) Structure Outline of Major in Information Technology (Minimum Credits to be Earned=56)

<table>
<thead>
<tr>
<th>Semester</th>
<th>Course Code</th>
<th>Course Type</th>
<th>Course Name</th>
<th>Credit(s)/week</th>
<th>Cumulated Credits Category-wise</th>
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<tr>
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<td>Compulsory Course I</td>
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<tr>
<td></td>
<td>BSCIT00101</td>
<td>Major Core Course I</td>
<td>Information Technology Fundamentals</td>
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<td></td>
<td>BSCIT00102</td>
<td>Major Core Course II</td>
<td>PC Software</td>
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<td>GI and H Course I</td>
<td>Major Core Course II</td>
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<td>System Analysis and Design</td>
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<td>Major Core Course VII</td>
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<td>Core – 8 (32)</td>
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<td>Elective – 8 ((32))</td>
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<td>Course Type</td>
<td>Course Name</td>
<td>Credit(s)/week</td>
<td>Cumulated Credits Category-wise</td>
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<td>BSCIT00408</td>
<td>Major Core Course VIII</td>
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<td>Internet Technology &amp; Web Page Designing Lab IV</td>
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<td>Core / Elective Course (Additional)*</td>
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<td>BSCIT00511</td>
<td>Major Core Course XI</td>
<td>OOPS with C++</td>
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<td>OOPS With C++ Lab V</td>
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<td>Core / Elective Course (Additional)*</td>
<td>Any one of the Additional or open elective courses</td>
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<td></td>
<td>BSCIT00612</td>
<td>Major Core Course XII</td>
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<td>BSCIT00614</td>
<td>Major Core Lab Course XIV</td>
<td>Project Development</td>
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*Additional Elective Courses offered by Information Technology Department (can be chosen for earning credits over and above 56 Major subject credits, 40 Minor elective credits, 9 (Min.) Compulsory course credits and 1 (Min.) 3G I&H Course credits i.e. total 106 credits; for getting B.Sc. Degree a learner has to earn a minimum of 120 credits.)

<table>
<thead>
<tr>
<th>Semester</th>
<th>Course Code</th>
<th>Course Type</th>
<th>Course Name</th>
<th>Credit(s)/week</th>
<th>Cumulated Credits Category-wise</th>
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<tbody>
<tr>
<td>V/VI</td>
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<td>BSCIT00616(P)</td>
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<td>V/VI</td>
<td>BSCIT00618</td>
<td>Core / Elective Course (Additional)*</td>
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<td>BSCIT00618(P)</td>
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<td>Internet Technology Lab</td>
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<td>V/VI</td>
<td>BSCIT00619</td>
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<td>BSCIT00619(P)</td>
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<td>Programming with JAVA Lab</td>
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<td>V/VI</td>
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<td>V/VI</td>
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<td>BSCIT00621(P)</td>
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<td>Dot Net Technologies Lab</td>
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<td>Semester</td>
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<td>Course Type</td>
<td>Course Name</td>
<td>Credit(s)/week</td>
<td>Cumulated Credits Category-wise</td>
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<td>V/VI</td>
<td>BSCIT00622</td>
<td>Core / Elective Course (Additional)*</td>
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<td>BSCIT00622(P)</td>
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*Open Elective Courses offered by Information Technology Department*

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<th>Course Code</th>
<th>Course Type</th>
<th>Course Name</th>
<th>Credit(s)/week</th>
<th>Cumulated Credits Category-wise</th>
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</thead>
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<tr>
<td>VI</td>
<td>BSCIT00408</td>
<td>Open /Core Elective Course (Additional)*</td>
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<td>BSCIT00408(P)</td>
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<tr>
<td>VI</td>
<td>BSCIT00102</td>
<td>Core / Elective Course (Additional)*</td>
<td>PC Software PC Software Lab</td>
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<td>BSCIT00102(P)</td>
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General Interest Courses Offered by Information Technology Department

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<th>Semester</th>
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<th>Course Type</th>
<th>Course Name</th>
<th>Credit(s)/week</th>
<th>Cumulated Credits Category-wise</th>
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<tbody>
<tr>
<td>I/II/III</td>
<td>BSCIT0**23</td>
<td>GI/H</td>
<td>Introduction to Window OS</td>
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<td>I/II/III</td>
<td>BSCIT0**24</td>
<td>GI/H</td>
<td>e-Commerce</td>
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<td>I/II/III</td>
<td>BSCIT0**25</td>
<td>GI/H</td>
<td>Cyber Law</td>
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(B) Structure Outline of Minor Elective in Information Technology for other than Major Information Technology Students (Minimum Credits to be Earned=20). Other than Physic Major learner can do Double major by earning 34 more credits over and above 20 credits of Minor Elective.

List of Minor elective in Information Technology

<table>
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<tr>
<th>Semester</th>
<th>Course Code</th>
<th>Course Name</th>
<th>Course Name</th>
<th>Credit(s)/week</th>
<th>Cumulated Credits</th>
<th>Category-wise</th>
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<tbody>
<tr>
<td>VI (Even)</td>
<td>BSCIT00101</td>
<td>Minor Elective Course I (a)</td>
<td>Information Technology Fundamentals</td>
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<td>Minor Elective Course II (a)</td>
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<td>BSCIT00204</td>
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<td>Minor Elective Course III (a)</td>
<td>Lab</td>
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<td>BSCIT00407</td>
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<td>Operating System</td>
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Compulsory (Skill Based) Course based on "spokentutorial.org" based on National Mission of Education through Information and Communication Technology (NMEICT), MHRD, Government of India.

<table>
<thead>
<tr>
<th>Semester</th>
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<th>Credit(s)/week</th>
<th>Cumulated Credits Category-wise</th>
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<td>Compulsory Course (Skill Based)</td>
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<td>BSCIT**26(P)</td>
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<td>I/II/III</td>
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<td>BSCIT**29(P)</td>
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BSCIT00101- Information Technology Fundamentals

Unit-I

Information, concepts and Evolution of information processing, data, information, language and communication, Block diagram of computer and functions of each unit. Data storage devices and media: primary storage: storage addresses and capacity type of memory: secondary storage, magnetic tape, data representation r/w, magnetic disc, fixed & removable, data representation and r/w/, floppy, disk drives, Winchester disk drive, conventional disk drives, data organization,

Unit-II

Input output devices : character printers line printer page printers, keyboard devices, scanners, light pen, mouse, visual display devices, data communication equipment, software system software application software.

Unit-III

Computer and communication single user multi-user, multiprocessing, multiprogramming, Time sharing, real time processing workstation, client server systems computer network protocols, LAN, WAN, transmission media-twisted pair, coaxial cable, radio link, microwave link, optical fiber, magnetic tape.

Unit-IV

Evolution of Internet, Internet application, TCP-IP, Addressing in Internet-IP and Domains, Internet Service Providers, Types of Connectivity such as dial-up leased, VSAT, etc., Internet Server and Client modules of various operating systems.

TEXT:

1. Rajaraman, V. "Fundametnal of Computers".Printice Hall India New Delhi.
2. P.K. Sinha, " Computer Fundamental" BPB Publication

Note: In each theory paper, nine questions are to be set. Two questions are to be set from each Unit and candidate is required to attempt at least one question from each unit. Question number nine will be compulsory, which will be of short answer type with 5-10 parts, out of the entire syllabus. In all, five questions are to be attempted.
UNIT -I

DOS commands: (internal (DIR, DATE, TIME, CLS, CD, RD, MD, PATH, TYPE, DEL, ECHO, COPY, REN, PROMPT, VOL, VER), external (ATTRIB, CHKDSK, DISKCOPY, DISKCOMP, XCOPY, TREE, DELTREE, DOSKEY, FORMAT, FIND, SORT, FDISK, MORE, SYS)), Concept of files & directories, Wild card characters, Redirection operators.
Windows 7: Definition, Benefits, Features & uses of Windows 7, Control panel, Accessories, Task bar, My computer uses, Recycle bin.

UNIT -II


UNIT –III

Spreadsheets: Definition, Benefits, Features & Uses of MS Excel 2007, Menus, Toolbars, Worksheets, Formatting Worksheets and Restricting Data, Calculating with Formulas and Functions, Ranges, Auto fill, Data (sort, filter, validation, subtotal), Viewing and Manipulating Data with charts and PivotTables, Print, Macros.

UNIT –IV

Presentations: Definition, Benefits, Features & Uses of PowerPoint, Menus, Toolbars, Creating and Editing Slides, Adding graphics, Multimedia, and Special Effects to Slides, Insert (picture, slide, text), Master slide, Views, Animation, Action buttons, Macros.
Text & Reference Books:


Note: In each theory paper, nine questions are to be set. Two questions are to be set from each Unit and candidate is required to attempt at least one question from each unit. Question number nine will be compulsory, which will be of short answer type with 5-10 parts, out of the entire syllabus. In all, five questions are to be attempted.
UNIT -I

Data representation: number systems, decimal to binary, octal and hexadecimal conversion and vice versa, binary coded decimal numbers, hamming code for error detection, alphanumeric codes, arithmetic operations, binary addition and subtraction, addition/subtraction of numbers in 1’s and 2’s complement notation for binary numbers and 9’s and 10’s complement notation for decimal numbers, binary multiplication and division.

UNIT-II

Register Transfer Language: Register transfer, Bus and Memory transfer (three-stage bus buffers, memory transfer), arithmetic micro-operations Logic micro-operation (list op logic micro-operations, hardware implementation), shift micro-operations (hardware implementation), arithmetic logic shift unit, instruction codes (stored program organization, indirect address), computer registers (common bus register).

UNIT-III

Computer instructions (instruction set completeness), timing and control, instruction cycle (fetch and decode, types of instruction, register-reference instructions), Micro programmed control, control memory, addressing sequencing (conditional branching, mapping of instructions, subroutine) Central Processing Unit: Introduction, general register organization (control word, examples of micro-operations), stack organization (register stack, memory stack, reverse polish notation, evaluation of arithmetic expressions),

UNIT-IV

Instruction formats (three-address instructions, two address instructions, one-address instructions), addressing modes. Input Output Organization: Introduction to peripheral devices, input output interface (I/O bus and interface modules, I/O versus memory bus, isolated versus memory-mapped I/O), asynchronous data transfer (strobe control, handshaking).
Text and reference books:


Note: In each theory paper, nine questions are to be set. Two questions are to be set from each Unit and candidate is required to attempt at least one question from each unit. Question number nine will be compulsory, which will be of short answer type with 5-10 parts, out of the entire syllabus. In all, five questions are to be attempted.
UNIT-I

Introductory Concepts: Introduction to computers, Computer characteristics, modes of operation, Types of programming languages, Introduction to C, some simple C programs, Desirable program characteristics.

C Fundamentals: C character Set, Identifiers and keywords, data types, constants, variables and arrays, Declarations, expressions, statements, Symbolic constants.

UNIT-II

Operators and expressions: Arithmetic operators, unary operator, Relational and logical operators, assignment operators, conditional operators, Library Functions.

Data Input and Output: Preliminaries, singe character input, singe character output, Entering input data, writing output data, the gets and puts function.

Preparing and Running a Complete C Program: Planning a program, Writing a C program, entering the program into the compiler, compiling and executing the program, error diagnosis, debugging techniques.

UNIT-III


Arrays: Defining an array, processing an array, passing arrays to functions, Multidimensional arrays, Arrays and strings.

UNIT-IV

Functions: Defining a function, accessing a function, function prototypes, passing arguments to a function, recursion.

Pointers: Fundamentals, Pointer declarations, Passing pointers to the functions, pointers and one dimensional array, dynamic memory allocation, Operations on pointers, arrays of pointers.
Text & Reference Books:


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UNIT -I


UNIT –II


UNIT –III

System requirement specification and analysis: Fact finding techniques, Data Flow Diagrams, Data Dictionaries, process organization and interaction, Decision Analysis, Decision Trees and Tables, Top down and bottom up variance, Audit trails.

UNIT –IV

Detail Design: Modularization, module specification, file design, system development involving databases. System Control and Quality Assurance: Design objectives reliability and maintenance, software design and documentation tools, unit and integration testing, testing practice and plans, system control.

Text & Reference Books:


Note: In each theory paper, nine questions are to be set. Two questions are to be set from each Unit and candidate is required to attempt at least one question from each unit. Question number nine will be compulsory, which will be of short answer type with 5-10 parts, out of the entire syllabus. In all, five questions are to be attempted.
UNIT-I
Introduction To Database Concepts: Data Modeling for a Database, Fields, Records and Files, Abstraction and Data Integration, Database Architecture, Users, Structure of DBMS, Advantages and Disadvantages of DBMS.
Data Models: Entity, Attribute, Relationship, Data Model Classifications, File based, Traditional, Semantic, Entity-Relationship Model.

UNIT-II
File Organization: Operation on files, Sequential Files, Index-Sequential Files, Types of Indexes, Implicit, limit, multilevel, Direct Files, Indexing using B-Tree Structure.
Relational Model: Relational Database- Relational Algebra, Relational Calculus.

UNIT-III
Relational Database Design: Relational Scheme and Relational Design, Functional Dependency, Normal forms (First, Second, Third, Boyce Code), Decomposition and dependency preservation, Multi-valued dependency.

UNIT-IV
MS Access: Tables (Creation/Design structure, Data Entry), Primary keys, Foreign Keys Master-Detail Table, Query (Select, Make-Table, Update, Append, Delete) Form (Modal, Modeless), Relationships Report (Creation of a simple report from a table and from a query).

Text & Reference Books:
2. Bipin C. Desai, “An Introduction to Database Management System”.
4. Date, C.J., ÑAn Introduction to Database SystemÑ, Narosa Publishing House.

Note: In each theory paper, nine questions are to be set. Two questions are to be set from each Unit and candidate is required to attempt at least one question from each unit. Question number nine will be compulsory, which will be of short answer type with 5-10 parts, out of the entire syllabus. In all, five questions are to be attempted.
UNIT -I


UNIT -II


UNIT -III


UNIT -IV

Memory Management: Partition, Paging, Segmentation, Types Of Memory Management Scheme, Bare Machine, Resident Monitor, Swapping, Multiple Partition, Virtual Memory, Demand Paging.

Text & Reference Books:


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UNIT-I
Internet: Evolution of Internet, Internet Application, Network requirements, Bandwidth, Internet features (Electronic Mail, Newsgroups, FTP Archive, Real Time Activity, Video, Audio, Search Engine).

UNIT-II
World Wide Web: Definition, WWW Browsers, WWW Servers, Dial-Up SLIP, PPP Access, Dedicated line, ISDN. TCP/IP Connectivity- DNS Servers, Domain Names Registration process, IP addressing, Routing with TCP/IP Basics

UNIT-III

UNIT-IV
CSS: Formatting your site with Cascading Style Sheets, Seeing Style Sheets in Action, Understanding CSSI’s Advantages and Limitations, Making HTML and CSSI’s, Making HTML and CSSI work together, Learning How CSSI Works, Using CSSI Properties.

Text Books:
1. Internet Get Started: BPB Publications.
6. HTML Complete: BPB Publisher.

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UNIT-I


UNIT-II

Page Layout: Different page format / Layouts, News paper page format, Page orientations, Columns & Gutters, Printing in reduced sizes.
Page Maker: Introductions To Page Maker Icon and help, Tool Box, Styles, Menus etc., Different screen Views, Importing text/Pictures, Auto Flow, Columns, Master Pages and Stories, Story Editor, Menu Commands and short-cut commands, Spell check, Find & Replace, Import Export etc., Fonts, Points Sizes, Spacing etc., Installing Printers, Scaling (Percentages), Printer setup.

UNIT-III

Use Of D.T.P: Use of D.T.P. in Advertisements, Books & Magazines, Newspaper, Table Editor.
Adobe Photoshop: Introduction to Photoshop & Flash, Documents ,Various Graphic Files

UNIT-IV


Text & Reference Books:

1. Page maker 4.0 & 5.0 by b.p.o. publications.
2. Prakhar complete course for dtp (coreldraw, pagemaker, photoshop)

Note: In each theory paper, nine questions are to be set. Two questions are to be set from each Unit and candidate is required to attempt at least one question from each unit. Question number nine will be compulsory, which will be of short answer type with 5-10 parts, out of the entire syllabus. In all, five questions are to be attempted.
UNIT – I


UNIT – II


UNIT – III


UNIT – IV


Text & Reference Books:

2. Surendra Basandra, “Computers Today”.

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UNIT-I

Object oriented programming: Need for OOP, object oriented approach, characteristics of OOP language- objects, classes, Inheritance, Reusability, Polymorphism, overloading advantage of OOP, relationship between C and C++.
Programming Basic: Basic program construction, output using cout, preprocessor directive, comments, integer variables, character variables, input with cin, Type bool, setw Manipulator, type float, type conversion, arithmetic operators, relational operators, logical operators.

UNIT-II

Loops and decision control statements: loop- for, while, do, decision-if, if-else, switch, conditional operator, other control statements- break, continue, goto.
Structures and functions: structures, Accessing structure members, structure within a structure, Enumerated Data type, simple functions, passing arguments to functions, Returning values from functions, reference arguments, overloaded functions, storage classes, scope resolution operator.

UNIT-III

Objects and classes: A simple class, classes and objects, specifying a class, using a class, C++ objects as physical objects, C++ objects as data types, Constructors, objects as function arguments, returning objects from functions.
Arrays: Array fundamental-defining array, array elements, Accessing array elements, Initializing arrays, multidimensional arrays, passing arrays to functions, array of objects, strings-string variables, Avoiding Buffer overflow, string constants, array of strings string as class members, Standard C++ string Class.

UNIT-IV

Operator overloading: Overloading unary operators- the operator keyword, operator arguments, operator return values nameless temporary objects, limitation of increment operators, overloading Binary operators, data conversion, Pitfalls of operator overloading and conversion.
Inheritance: Derived class and base class, specifying the derived class, accessing base class, members, derived class constructors, overriding member functions, class hierarchies, public and private Inheritance, levels of inheritance, multiple inheritance.

Text & Reference Books:


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BSCIT00612- Fundamental of Networking

UNIT-I
Introduction to Communication Network: Computer Networks,(Need, uses, and Advantages of Computer Network), Network Models (Peer-to-Peer-Network, Server-based Network, Client-Server Network), Network components, Network Topology (Star, Ring, Bus, Mesh, Tree, Hybrid) Advantage and Disadvantage of each types, Types of Networks (LAN, MAN, WAN), Internet (Brief History, Internet Protocol and Standard)

UNIT-II
Error Detection and Correction: Types of errors (Single–bit-error, Burst-Error), Error Detection (Redundancy, Parity check, CRC, Checksum), Error correction (FEC, Hamming code, Burst error corrections), Data Communication Channel and Media, Conductive Media (Twisted-pair cable, Coaxial cable), Fiber optics (Characteristic of light, Types of Fiber optics), Wireless Transmission, (Microwaves, Infrared, Radio waves).

UNIT-III

UNIT-IV

Text & Reference Books:

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Note: In each theory paper, nine questions are to be set. Two questions are to be set from each Unit and candidate is required to attempt at least one question from each unit. Question number nine will be compulsory, which will be of short answer type with 5-10 parts, out of the entire syllabus. In all, five questions are to be attempted.
BSCIT00613- Multimedia Technology

UNIT-I


UNIT-II


UNIT-III


UNIT-IV

Video: Basics of Video Analog and Digital Video, How to use video on PC. Introduction to graphics accelerator cards, Brief note on various video standards NTSC, HDTV, Introduction to video capturing Media & instrument Videodisk. Virtual Reality Terminology Head Mounts Display (HMD), Boom, Cave, Input Devices and Sensual Technology

Text & Reference Books:


Note: In each theory paper, nine questions are to be set. Two questions are to be set from each Unit and candidate is required to attempt at least one question from each unit. Question number nine will be compulsory, which will be of short answer type with 5-10 parts, out of the entire syllabus. In all, five questions are to be attempted.
UNIT-I

Fundamentals of semiconductor physics: Energy bands in solids- pn-junction diode depletion region, forward and reverse bias, diode as switch; Bipolar Junction Transistor, transistor configurations, bipolar junction transistor (CE configuration) as switch, Saturated and non-saturated logic, Integrated Circuits, characteristics of digital logic families-TTL, ECL, CMOS.

UNIT-II

Logic gates: AND, OR, NOT Gates and their Truth Tables, NOR, NAND & XOR gates, Boolean algebra, Basic Boolean Law’s, Demorgan’s theorem, Boolean function and their truth tables.

UNIT-III


UNIT-IV


Text & Reference Books:


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UNIT I

Linux Utilities-File handling utilities, Security by file permissions, Process utilities, Disk utilities, Networking commands, Filters, Text processing utilities and Backup utilities, sed – scripts, operation, addresses, commands, applications, awk – execution, fields and records, scripts, operation, patterns, actions, functions, using system commands in awk.

UNIT II

Working with the Bourne again shell(bash): Introduction, shell responsibilities, pipes and input Redirection, output redirection, here documents, running a shell script, the shell as a programming language, shell meta characters, file name substitution, shell variables, command substitution, shell commands, the environment, quoting, test command, control structures, arithmetic in shell, shell script examples, interrupt processing, functions, debugging shell scripts.

UNIT III

Files: File Concept, File System Structure, Inodes, File Attributes, File types, Library functions, the standard I/O and formatted I/O in C, stream errors, kernel support for files, System calls, file descriptors, low level file access – File structure related system calls(File APIs), file and record locking, file and directory management – Directory file APIs, Symbolic links & hard links.

UNIT IV

Process – Process concept, Kernel support for process, process attributes, process control - process creation, waiting for a process, process termination, zombie process, orphan process, Process APIs. Signals– Introduction to signals, Signal generation and handling, Kernel support for signals, Signal function, unreliable signals, reliable signals, kill, raise, alarm, pause, abort, sleep functions.

TEXT BOOKS:
1. UNIX System Programming using C++, T.Chan, PHI.
REFERENCES:
2. Unix Network Programming, W.R. Stevens, PHI.

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UNIT – I

Overview of Artificial Intelligence: Definition Of AI, The Importance Of AI, Previous Works In The History Of AI, AI And Related Fields, Problems, Problem Spaces And Search.

UNIT – II

Knowledge: General Concepts, Definition and Importance of Knowledge, Knowledge-Based Systems, Representation of Knowledge, Knowledge Organization, Knowledge Manipulation, Acquisition of Knowledge. Structural Knowledge: Graph, Frames and Related Structures.

UNIT – III


UNIT – IV


Text & Reference Books:

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UNIT – I


UNIT – II


UNIT – III

Cascading Style Sheets: Introduction, Levels of style sheets, Style specification format, Selector, Forms, Property value form, Font properties, List properties, Colour, Alignment, Box model, Background Images, <span> & <div> tags.

UNIT – IV


Text & Reference Books:


Note: In each theory paper, nine questions are to be set. Two questions are to be set from each Unit and candidate is required to attempt at least one question from each unit. Question number nine will be compulsory, which will be of short answer type with 5-10 parts, out of the entire syllabus. In all, five questions are to be attempted.
UNIT – I


UNIT – II

Control Statements–Selection (if, switch), Iteration Statements (while, do-while, for) Jump Statements (break, continue, return), Arrays (One-dimensional, Multi-Dimensional).

UNIT – III

Introducing Classes: Class Fundamentals, Declaring Objects, Methods, Constructors, ‘This’ Keyword, Over loading Methods. Inheritance: Inheritance Basics, Protected Members, Method Overriding, Multiple Inheritance.

UNIT – IV

Exception Handling: Fundamental, Exception Types, Uncaught Exceptions, Try And Catch, Dealing With Exceptions (try, throw, throws, finally).

Text Book:

Reference Books:

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UNIT – I


UNIT – II

Output Primitives: Line Drawing Algorithms (DDA, Bresenham’s ), Circle Generating Algorithm (Midpoint Circle Drawing Algorithm), Ellipse Generating Algorithm, Midpoint Ellipse Generating Algorithm, Character Generation.

UNIT – III

2D Transformations: Translation, Rotation, Scaling, Reflection, Shear, Composite Transformation-Translation, Rotations, Scaling.

UNIT – IV

Two Dimensional Viewing: Window-To-Viewport Coordinate Transformation, Clipping Operations, Point Clipping, Line Clipping(Cohen-Sutherland Line Clipping, Liang-Barsky Line Clipping), Polygon Clipping(Sutherland-Hodgeman Polygon Clipping, Weiler-Atherton Polygon Clipping).

Text & Reference Books:


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UNIT – I
Introducing .NET: Microsoft web development, Move from workstation to distributed computing, Internet factor, importance of.net platform- OS neutral environment, device independence, wide language support, internet based component services.
.NET framework: Common language runtime(CLAR), code management and execution, security support, error handling and garbage collection,.net framework class libraries-System classes, data and XML classes, windows form and drawing classes, web classes. Features of .NET framework.

UNIT – II
VB.NET : Introduction, statement, lines, comments, operators, procedures, variables- implicit, explicit, constants, parameters, arrays, branching, looping, objects, classes, inheritance, accessibility of inherited properties and methods, overriding methods.
System class, working with numbers, manipulating strings, DateTime arithmetic, converting values, formatting values, managing arrays.
Namespace and assemblies, Relating namespaces and DLL assemblies, creating assemblies, importing assemblies, using imported assemblies, compiling with imported namespace.

UNIT – III:
ASP.NET Web Forms: Web forms code model, In-page vs. Code-behind format, web form object life cycle, handling client side events on the server, web form event handling, define and respond web form control events, AutoPostBack property, automatic state management with web forms.

UNIT – IV
HTML sever control: definition, RunAt sever attribute, HTML control class, General controls-Anchor, image, form, division, span, Table control, Input Control.
Web server Control: Web Control class, General control- Hyperlink, link button, image, label, Panel, Form Controls, Table controls.

Text Book:

Reference Books:
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UNIT – I
Visual Basic Overview: Creating a project in visual basic the parts of a visual basic project, visual basic programming conventions-variable scope prefixes, variable prefixes, control prefixes menu and constant prefixes, best coding practices in visual Basic- program design language, coding to get the most from visual basic.

UNIT – II
Visual Basic Language: Declaring constants, variable selecting variable types, converting between data types, setting variable scope, verifying data types declaring arrays and dynamic arrays,
Declaring subroutines, functions, preserving variable values between calls to their procedures, Handling strings, operators and operator precedence, if-else statements, select case, switch ( ) and choose, Looping.

UNIT – III
Managing forms in Visual Basic: The parts of a form the part of an MDI form Adding toolbar, status bar to the forms, working with multiple form loading, showing and hiding forms, setting the start up form, arrays of forms.
Coordinating data between MDI child from visual basic menus, command buttons, check boxes, List boxes and combo boxes, scroll bars and sliders, picture boxes and Image control.

UNIT – IV
File handling and file control, working with graphics, working with images, creating Active X controls and documents.

Text & Reference Books:

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BSCIT**23  Introduction to Windows Operating System

UNIT –I

UNIT –II

UNIT –III
Managing Folders and Files- Navigate to Folders with Windows Explorer, Work with Folders and Files, Copy Data on Storage Media, Renaming files and folders, Deleting files and folders, Views.

UNIT –IV
Windows Setting- Control Panels, Setting the date and Sound, Concept of menu Using Help, Using right Button of the Mouse, Creating Short cuts, Basics of Window Setup, Notepad, Window Accessories, Device manager, System restore.

Text & Reference Books:


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BSCIT**24 e-Commerce

UNIT-I


UNIT-II


UNIT-III


UNIT-IV

Securing the Business on Internet: security Policy, Procedures and Practices, transaction security, CRM, what is e-CRM, it's applications, The e-CRM marketing in India, Major Trends, Global Scenario for e-CRM, CRM utility in India.
Text & Reference Books:


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BSCIT**25 Cyber Law

UNIT – I


UNIT – II


UNIT – III


UNIT – IV


Text and Reference Books:

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BSCIT**26 Basic IT Skills

Unit-I

Introduction & Installation (Linux & Windows), Libre Office Writer, Formatting, Typing. Inserting objects & Inserting pictures, Viewing, Saving, Printing.

Unit - II

Calc- Introduction, How to works with cells, sheets, Formatting, Basic data manipulation, Working with data. Impress- Introduction, Creating a presentation, Viewing a presentation (one lecture on presentation skills to enhance learning), Inserting pictures in document, Printing.

Unit - III


Unit - IV

Linux OS, Linux basics, Installation -10, Ubuntu desktop, Synaptic packet manager, Basic commands, GPU, File system, Working with regular files, File attributes, Redirection & pipes, Linux processes, Linux environment, Basic system administration, Simple filters.

Refer "spokentutorial.org" for online support and material.

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BSCIT**27 Blender

Unit - I

Unit -II
Blender Interface - Camera View, Basic Description, Change Window Types, File Browser and Info Panel Windows.

Unit- III

Unit - IV
More on Window Properties - Window Properties-3, Window Properties-4, Window Properties-5, Examples on Animation covering movie making etc.

Refer "spokentutorial.org" for online support and material.

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**BSCIT**28 GIMP

**Unit - I**
Starting up with GIMP- Introduction & Installation (Linux & Windows), Image for Web, Setting up GIMP, Rotate and Corp the Image, Adjusting Colors in the Image, Healing and Cloning the image.

**Unit - II**
Tools in GIMP- Triptychs New Way, Drawing Tools, Sketching in GIMP, Brushes in GIMP.

**Unit - III**
Colors and Dialogs- Introduction to Colors and Dialogs, Curves Tool, Edits in the Image using GIMP, Drawing a Figure in GIMP.

**Unit - IV**

Refer "spokentutorial.org" for online support and material.

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Unit-I

Unit -II
Java using Eclipse-II - Primitive type conversions, Relational Operators, Logical Operators, If- Else, Nested- If. Statements and Loops - Switch Statement, For Loop, While Loop, Do- while.

Unit -III

Unit- IV

Refer "spokentutorial.org" for online support and material.

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