COMPUTER SCIENCE

The examination in Computer Science will comprise One theory Paper and Practical examination for each semester. The theory paper will be of 3 Hours Duration and carry 80 marks. The Practical examination will be of 4 Hrs duration and carry 50 marks.

The distribution of marks in Practical examination is given as. :

1) Program writing / execution (on group A & B) : 30 marks
2) Practical / Record :10 marks
3) Viva-voce : 10 marks

Total 50 marks

1S: Computer Science or Computer Application or Information Technology
Paper-I

Computer Fundamentals and C Programming

UNIT-II: Introduction to Computers:

Characteristics , generation and classification of computers , block diagram of computers ,memory and their types : Primary and secondary , Flash and buffer ,peripheral devices : Keyboard , mouse , scanner ,printers : Impact ,non impact ,DMP inkjet , laser .

UNIT-II: Introduction to OS :

Need And Function Of OS, Types Of OS : Single User And Multiuser ,Batch , Multiprogramming, Time Sharing, Online Real Time System, Features Of Unix OS, Windows.

File Handling: File Naming, File Structure, File Type, File Access, File Attributes: Protection, Password, Creator, Owner, and Hidden Flag, read Only flag, actual size Operation on file :create, delete, open, close, read, write, append, seek, rename

UNIT-III: Networking:

Introduction, Need of computer communication network, communication protocol, Types of network: LAN ,WAN, MAN, Topology : Star, Ring, Bus ,Mesh,

Introduction to internet: History, types of internet connection : Direct, Dial-up ,Broad band ,Internet Protocol :TCP/IP ,FTP, HTTP, Domain, URL, e-mail address ,Web browser :Internet Explorer ,Netscape Navigator ,Search engines.

UNIT –IV : Programming concept :

Algorithm ,Flowcharting, programming language ,assembler ,interpreter, compiler , Programming process: Program design, coding, compilation ,execution , testing, debugging ,Documentation ,structured programming : features and approaches .

Introduction to C, History, features structure of C program, header file, character set, keywords, identifiers,

UNIT –V

constants, variables, basic data types, symbolic constants, typedef , Storage class , symbolic constants and their types .operators: Arithmetic, Relational, logical assignment, Increment and decrement, bitwise ,conditional expression : Arithmetic expression and precedence of arithmetic operation, Type conversion.

UNIT- VI : I/O Operations :

Formatted I/O statement : Printf ( ), Scanf ( ) , Unformatted I/O : getch( ), getche ( ) , getchar ( ), putch ( ) , putche ( ), putchar ( ), gets ( ), Puts ( ) , Control Statements : conditional : simple if , if... else, nested if, conditional operator , switch, goto, for, while, do..while, nesting of loops, break, continue statement

Books Recommended:

1) Computer fundamental: B Ram, Nas Age publication

2) Fundamentals of Computer: V. Rajaraman, PHI Publication.

3) Computer Fundamentals : Preeti Sinha, BPB Publication.

4) Information Technology : Alexie and Mathews, Vijay Nikole Publication.

5) IT Tools and Applications : Alexie and Mathews, Vijay Nikole Publication.

6) Programming in C : E algurusamy, TMH. Publications.

7) C Programming With C : Ravichandran.

8) Program with C : Byron Gottfried, schaum series Publication.

Practicals : Minimum 16 practicals based on

A. Unit-II, III and MS-WORD, MSEXCEL (Minimum 8 Practicals)

B. Unit-IV to Unit-VI (Minimum 8 Practicals)

2S: Computer Science or Computer Application or Information Technology
Paper-II

Web Technology and Advanced programming in C

UNIT-I : Introduction to HTML: HTML History, Hypertext and Hypertext Markup Language, Microsoft Front Page, HTML tags and attributes : Adding tags, include attributes <HTML>, <HEAD>, <TITLE>, <BODY>, <P>,
, <HR>, Heading tags, table tags, <A>, <LINK>, <IMG>, <ROWSPAN>, <COLSPAN>, <MARQUEE>, <BLOCKQUOTE>, list tag, Attributes : alignment, background colour, text colour.

UNIT-II:Style Sheet : Introduction, Advantages and applications of style sheets. CSS : Introduction, syntax of CSS with example, Type of style sheet (internal, External and inline) Units Classes and ID attributes, Properties : Test, Font, Colour, Background, Border, Display, height, line- height, margin, width. CSS with HTML.

Unit III : XML: features of XML simple XML document, element, attributes, components of XML .Document: documents prolog and document instance

DTD (document type definition) : introduction need of DTD, declaring elements, elements, content models declaring attributes, attributes types, internal and external DTD. CSS with XML.

Unit IV: array : introduction, declaration and initialization of one and two dimensional array.

Pointer : introduction, understanding pointers, declaration and initialization, accessing variable through its pointer, pointer expression, pointer increment and scale factor, pointers and arrays, pointers and character strings, pointers and functions.

Strings : Declaration and initialization of string variable, operations on string, reading and writing, string functions : strcpy(), strcmp(), sarvat(), stolen().

Unit V : Functions: introduction, need of function, function, prototype, function calling, call by value call by reference, return value and there types, function parameters, local and global variable, function with array, function recursion.

Unit VI : Structure : introduction, declaration, initialization, accessing structure elements, array of structure, nested structure.

Unions: Introduction, comparison of structure and union.

File handling : introduction, definition and opening a file, reading from a file, Writing to a file , closing a file, I/O operations on file : ghet(), fputc(), fupta(), gheta(), fscanf(), fprintf(), dread(), fwrite() and simple program on these functions.

Books Recommended:

1. Let us C-Y. Kanetkar, BPB Publication
2. Programming in C :E Balguruswami,TMH publications
3. Programming in C :Ravichandran
4. C programming techniques –A.M. Padma reddy,Shri Nandai Publication Bangalore.
5. Programming in ANSCI C:Ramkumar and Rakesh Agrawal,TMH publication
6. C programming –Holzner ,PHI Publication
7. Mastering XML:Ann Navaro ,Chuck White,Linda Burman,BPB publication
8. The complete reference –Web design II edition by Thomas A. Powell,TMH
9. HTML 4.0:EStephen Mack and Janan Platt BPB publication
10. HTML in 21 days :Tech media Publication
11. HTML Complete : BPB publication

Practicals : Minimum 16 practicals based on

A. Unit-II, III and MS-WORD, MSEXCEL (Minimum 8 Practicals)

B. Unit-IV to Unit-VI (Minimum 8 Practicals)