

C++ SYLLABUS

Unit-1

An Overview of Computer System: Anatomy of a digital Computer, Memory Units, Main and Auxiliary Storage Devices, Input Devices, Output Devices, Classification of Computers. Radix number system: Decimal, Binary, Octal, Hexadecimal numbers and their inter-conversions; Representation of information inside the computers. Operating System Basics: Introduction to PC operating Systems: DOS, Unix/Linux, Windows 2000.

Unit-2

Programming Languages: Machine-, Assembly-, High Level- Language, introduction to Assembler, Compiler, Interpreter, Debuggers, Linker and

Loader. Programming fundamentals: problem definition, algorithms, flow charts and their symbols. Internet basics: How Internet works, Major features of internet, Emails, FTP, Using the internet.

Unit-3

C Programming language: C fundamentals, formatted input/ output, expressions, selection statements, loops and their applications; Basic types, arrays, functions, including recursive functions, program organization: local and external variables and scope & arrays.

Unit-4

Strings: strings literals, string variables, I/O of strings, arrays of strings; applications. Structures, Unions and Enumerations: Structure variables and operations on structures; Structured types, nested array structures; unions; enumeration as integers, tags and types. Standard library: Input / output; streams, file operations, formatted I/O, character I/O, line I/O, block, string I/O, Library support for numbers and character data, error handling: Text Books: 1. Using Information Technology, 5th Edi, Brian K Williams & Stacey C. Sawyer, 2003, TMH 2. The C Programming Language by Dennis M Ritchie, Brian W. Kernigham, 1988, PHI. 3. C Programming – A modern approach by K.N. King, 1996, WW Norton & Co.

Reference Books: 1. Information technology, Dennis P. Curtin, Kim Foley, Kunal Sen, Cathleen Morin, 1998, TMH 2. Theory and problem of programming with C, Byron C Gottfried, TMH 3. Teach yourself all about computers by Barry Press and Marcia Press, 2000, IDG Books India. 4. Using Computers and Information by Jack B. Rochester, 1996, Que Education & Training. Note: The Examiners will set eight questions, taking two from each unit. The students are required to attempt five questions in all selecting at least one from each unit. All questions will carry equal marks.