

Syllabus for B.Sc-IT Course

at S.P. College

SEMESTER -- I

COURSE TITLE: - PROGRAMMING IN C

COURSE CODE--BIT-103

UNIT I

Introduction to C:

Evolution of C Language, C character Set and Keywords, Data Types, Constants, Variables, Declarations, Expressions, Statements, Symbolic Constants. Library Functions, Basic structure of a C program.

Operators: Arithmetic operators, Unary operator Relational & Logical operator, Comma operator. Data Input and Output: getch () Function, putch () Functions, scanf () Function, printf () function, gets (), puts ().

UNIT II

Control Statements:

Control Statements: if statements, if-else statement, nested if statement, goto statement.

Loops:

Types of loops: while () Loop, do while () Loop, for () Loop, Nested Loop, switch case statements, break & continue statement, exit ().

Storage Class in C:

Automatic, Register, Static & External storage Classes.

UNIT III

Arrays:

Defining an Array, Processing an Array, Multidimensional Array, Array & Strings, Standard String Functions.

Functions:

Defining Functions, Accessing Functions, Passing Arguments to Functions, Specifying Arguments, Function Prototype, Recursion and Passing Array to a Function.

Pointers:

Pointer Declaration, Passing Pointers to a Function, Pointer & One Dimensional Arrays, Operators & Pointers, Pointers & Multidimensional Array, Array of Pointers.

UNIT IV

Structures & Unions:

Defining a Structure, processing a Structure, User Defined Data Types, Sorting Structures, Passing Structures to a Function and overview of Union.

File Management in C:

Introduction, Defining & Opening a File, Closing a File, Input/Output Operations on Files, Random Access to File & Command line Arguments.

Recommended Books:

- 1."Programming in ANSI C" by E Balaguruswamy. Tata McGraw Hill
- 2."Programming with C" by Brayan Gottfried. Tata McGraw Hill

References:

- 1."Let Us C " by Yashwant kanitkar. BPB Publications
2. "The Spirit of C" by Mullish,& Cooper
2. "Art And Craft of C" by R.B. Patel