Subject Code : RCCSAP9

CC – XIII -- COMPUTER PROGRAMMING

Unit I : INTRODUCTION

Character set – Constants – Variables – Arithmetic expressions – Library functions – Arithmetic Statements – FORMAT specifications – READ and WRITE statements unformatted I/O statements.

Unit II : CONTROL STATEMENTS

Unconditional GOTO and computer GOTO – Arithmetic and Logical IF – IF THEN ELSE statements – DO loops – DATA statements – logical and complex statements – String manipulations – WHILE structure.

Unit III : ARRAYS AND SUBPROGRAMS

Array declarative statements – Implied DO loops – One dimensional array – Multidimensional array – Function sub – programs – Subroutine subprograms – COMMON – EQUIVALANCE.

C LANGUAGE

Unit IV : CONTROL STATEMENTS

Variables – Data type – Constants – Declarations – Arithmetic and relational operators – Type conversion – Increments and decrements operation – Assignment operation – Bitwise logical operation – Order of equation – Associativity – Control structures – IF, IF ELSE, Switch, FOR, WHILE, DO WHILE, breake, continue - Label and goto statements

Unit V : ARRAYS AND POINTERS

Functions – Formal and actual argument – Return statement storage classes scope – Arrays – Pointer – Arithmetic – Array of strings – String functions – Pointer and structure – Nested structure – Type definition – Unions Files – Simple programs.

Books for study and Reference:

1. Programming with FORTRAN 77 – Ram Kumar – TMH – 1986
2. The C Primer – Les Hancock and Horries Krieyer - McGraw Hill – 1986
3. FORTRAN 77 with applications to Science and Engineering – R.K.Jain and R.P. Suri – TMH – 1986
4. Programming with FORTRAN 77 – Dhaliwal, Agarwal and Gupta – Wiley Eastern Ltd – 1991.
5. C Programming Principles and Practices – Tun Grady M - McGraw Hill – 1989
6. FORTRAN 77 and Numerical methods – Paul Xavier – Wiley eastern – 1994.