

**MAJOR PAPER I – FORTRAN AND COBOL PROGRAMMING**

UNIT – I

Introduction to FORTRAN – character set – constants – variables – expressions – library functions – arithmetic statements – structure of a FORTRAN programme – formatted and unformatted input and out statements – entering and execution of simple programs.

UNIT – II

Control statements – GOTO Statements – IF statements – DO statements – WHILE statements – DATA statements – double precision, logical and complex constants – type declaration – string manipulations – arrays and subscripted variable – programming examples.

UNIT – III

Statements functions – subprograms – function subprogram subroutine subprograms – COMMON and EQUIVALENCE statements – programming examples data files : data file organization – OPEN, READ, WRITE and END FILE statements – file creation programs – file processing programs.

UNIT – IV

PRELIMINARIES : Divisions of COBOL – Coding form – level numbers – editing picture characters – accept and display – move verb – input, output verbs – Arithmetic verbs – compute verbs. Perform – perform until – perform varying statements – rounding and On size error statements – Goto – Goto depending on statements.

UNIT – V

If – nested if statement – condition names – redefines – clause – justified clause – renames clause – synchronized clause – move corresponding statement – table handling. File organization – types – sequential – Index sequential and relative files – sort and merge features – report generation.

TEXT BOOKS:

1. FORTRAN 77 + Introduction to Fortran – 90 – R.K.Jain & R.P.Suri, Tata McGraw Hill international editions, schaum's outline series.
2. "Cobol programming M.K.Roy & D.Ghosh Dastidar, Tata McGraw Hill International editions, 8<sup>th</sup> edition 1985.

Reference Books:

1. Programming in Fortran77 – William E.Mayb & Martin laka, McGraw Hill International, Schaum Outline series.
2. Programming with modern structured outline series.  
NEWCOMER 2<sup>nd</sup> Edition, McGraw Hill International editions, Schaum's outline series.