

## OPTION (I) PROGRAMMING IN C (WITH ANSI FEATURE) (THEORY & PRACTICAL)

(Questions will be set from each unit/section)

Units	Topics
I	An overview of programming. Programming Language. Classification of programming Language: Procedural oriented, object oriented programming Language, Characteristics of a good programming Language Introduction to C, Basic structure of C- Program programming style. Execution of C Program. C tokens, Keywords and Identifiers constants, variables, Datatype, Declaration of variable; Assigning value to variable.
II	Operators and Expression, Arithmetic Operators, Relational Operator, Logical Operator, Assignment Operator, Increment Operator, Decrement Operator, conditional operators, Bit wise operator, special Operator Arithmetic Expression, Evaluation of Expression, Operator precedence & associativity. Input and output statements. Formatted input & formatted output.
III	Decision making and branching: if, else, nested if else, if Ladder, switch statements;?! operator GOTO operator; Looping statement :- While, do, for Jumps in Loops Arrays, one dimensional arrays; two dimensional array, multidimensional array. Pointers, Declaration of pointer accessing the address of a variable, initiating pointers, accessing a variable through its pointer. Pointer and arrays, pointer and function, pointer and structure.
IV	Handling of character strings, declaring and initializing string variables. String Handling functions. User defined function form of C-function, Return values & their types, calling a function by value & reference. Nesting of function recursion, Function with array & structures and union, Structure initialization, array of structures, structure within structure, structure and function.
V	File management in C, Defining & Opening a file, closing a file, Input / output operations on file Error handling I/O operator Random access to the files, Command. Line argument Preprocessors - Macro substitution, Ansi editions computer control directives.