

Programming And Problem Solving Through C - I

Time 3 Hours]

[Max. Marks 50

Note : Attempt any two parts of each question. All questions carry equal marks.

1. (a) Why is 'C' language known as a middle level programming language? Differentiate between Interpreter, Compiler and Assembler.
(b) What are preprocessor directives? List three of them. What is the difference between the #include (filename) and #include "filename"?
(c) What are algorithms? Write the properties and classifications of algorithms.
2. (a) Write a program to read 12 Numbers in an array and then find the maximum from those numbers.
(b) Write 'C' program code to compute the factorial of a number using recursion.
(c) Write a program to count the number of Vowels present in a text file. Display the count of each vowel separately.
3. Write short notes to explain the following :
(a) Pass by Value and Pass by Reference.
(b) Control loops in 'C' programming.
(c) Types of Variables and Error in 'C' programs.
4. (a) Define Macro. Also design a macro to find the smallest number among three given numbers.
(b) What are the different decision statements available in 'C' ?
(c) Explain the different types of file organisations in 'C' programming.
5. (a) Write atleast two differences between a structure and a union in 'C' language giving examples for each
(b) What do you understand by pointers in 'C'? Explain the meaning of dangling pointers.
(c) What are Arrays? How are two-dimensional arrays stored in memory? Write a program to multiply two two-dimensional arrays.