12/1/19
9.30-12.30

Roll No. | | | | | | | |

Paper Code: TCS 201

End Sem Back Examination Jan, 2019
II Semester
Programming in 'C'

Time: Three Hours MM: 100

Note:

(i) This question paper contains five questions with alternative choice.
(ii) All questions are compulsory.
(iii) Each question carries for parts a, b, c. Attempt two questions from each part.
(iv) Each part carries **ten** marks. Total marks assigned to each question are **twenty**.

Answer any two of the following questions: (5 x 20 = 100 Marks)

Que1. (a). What is function? Explain different types of methods to create user defined functions..

(b). What is Recursion? Explain different types of recursions with the help of examples.

(c). Write a user define function fact() to calculate factorial of a given number.

Que2. (a).Explain all the advantages of array with justification (with example).Explain run time and compile time initialization of 2D Array?

(b). Write a 'C' program to input n elements in an array and replace even numbers of array by its square and odd numbers by its cube.

(c). Write a 'C' program to input n*m array and print the diagonal elements of the array.

Que3. (a). What is pointer? How we can declare and initialize a pointer? Also show the use of address and indirection operator.

(b). Write short notes on the following-

i) Call by Value ii)Call by Reference

(c).Explain the memory allocation of a character and string constant with the help of an example? Explain 5 string library functions with their suitable syntax.

Que4. (a). What is the difference between structure and an Array? How we can initialize a structure variable in compile time and in run time?

(b). Create a structure named Emp with the attributes Name(char type), Age(int type),Gender(char type)and Salary(float type). Write a 'C' code to enter details of 5 Employees and display the details of those Employees having salary>=100000.

(c). Explain followings.

(i) Union
(ii) Typedef
(iii) Enumeration
(iv) Pointer Arithmetic

Que5. (a). What is the need of file in C. Explain different I/O functions used in file handling.

(b). Explain following functions with proper syntax.

(i) fseek()
(ii) ftell()
(iii) rewind()
(iv) feof()
(v) printf()

(c). Write a 'C' program to input n characters in "File.txt". Copy all upper case characters in "Upper.txt" and lower case characters in "Lower.txt" and display the contents of both files.