CT 303 - Advanced C Programming

P. Pages : 2 **GUG/W/16/3704**

Time : Three Hours

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Max. Marks : 80

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Notes : 1.   All questions carry equal marks.
2.   Due credit will be given to neatness and adequate dimensions.
3.   Illustrate your answers wherever necessary with the help of neat sketches.

1. a) What do you mean by data types in C ? State different type of data types use.   **8**

b) Explain command line arguments with any program.   **8**

OR

2. a) Write a program to determine the number is,   **8**
   i)   Prime or not prime.
   ii) Odd or Even

b) Write short notes on   **8**
   i)   Flowchart
   ii) Algorithm
   iii) Program
   iv) Procedure.

3. a) Write a program for searching a element in an array using linear search technique.   **8**

b) What do you mean by parameter passing? State and explain different parameter passing methods.   **8**

OR

4. a) Explain different storage classes used in C with an example.   **8**

b) Write a program for multiplication of two matrices and store the result in third matrix.   **8**

5. a) Write a program to compare the two strings without using library string function.   **8**

b) Compare 2D array representation with array of pointers representation.   **8**

OR

6. a) Write a program to print sum of element of an array present the using pointer.   **8**

b) Write note on following.   **8**
   i)   Pointer
   ii) Structure pointer.
   iii) Pointer to function.
   iv) Array of pointer.

7. a) Differentiate between static memory allocation and dynamic memory allocation with example and also explain malloc () & calloc () functions.   **8**

b)	Explain structure with an program. For structure student (name, roll_no, age).	**8**

<div align="center">**OR**</div>

8. a) Write a program to store following information of 50 employee using array of structures, Employee – ID, Name, City, Salary. **8**

b) Differentiate union & structure with an example. **8**

9. a) Write a C program that displays the content of a file into another file. **8**

b) Explain the following file functions with an example. **8**
 a) fscanf()
 b) fseek()
 c) fwrite ()
 d) fread()

<div align="center">**OR**</div>

10. a) What do you mean by file? list and explain different types of files. **8**

b) Write a c program to merge content of one file to another file, And store the result in second file. **8**

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