

B.Sc.-I (CBCS Pattern) Semester - II  
**USCST04 - Computer Science Paper-II : Structured Programming with C**

P. Pages : 2

Time : Three Hours



**GUG/S/23/11577**

Max. Marks : 50

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- Notes :
1. All the questions are compulsory and carry equal marks.
  2. Draw net and labelled diagram wherever necessary.
  3. Avoid vague answers and write answer relevant and specific to question only.

Either:

1. a) Define Array Explain Memory representation of arrays with suitable example. 5
- b) Write a program to Transpose of matrix of size  $M * N$ . 5

**OR**

- c) Explain: 5
  - i) Strlen( )
  - ii) Strcpy( )
- d) Write a program to calculate the average of 5 numbers using an array. 5

Either:

2. a) What do mean by structure? Explain the nested structure. 5
- b) What is mean by array of structure? Explain with suitable example. 5

**OR**

- c) Explain the Initialization of structure with suitable example. 5
- d) What is union? Explain the concepts of union. 5

Either:

3. a) Explain the user defined functions with suitable example. 5
- b) Write a program to find addition of two numbers using function. 5

**OR**

- c) Explain the Nesting of function with suitable example. 5
- d) Write a function to find a factorial of a given number. 5

Either:

4. a) Define Pointer Explain the Declaring and Initializing of pointer variable. 5  
b) Explain any two Dynamic memory management functions. 5

**OR**

- c) Explain the concept of opening and closing files in C. 5  
d) Differentiate between call by value call by reference. 5
5. Attempt all the questions:
- a) Write a note on Bounce checking. 2½  
b) Write a note on period operator. 2½  
c) Explain recursion in brief. 2½  
d) Explain the modes of files. 2½

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