

**TEEGALA KRISHNA REDDY ENGINEERING COLLEGE**

(UGC – AUTONOMOUS)

**B TECH I Semester Examinations, July 2021**

(Common to CE, ECE )

**PROGRAMMING FOR PROBLEM SOLVING**

**Answer any Five questions**

**All questions carry equal marks**

**Time : 3 Hours**

**Max. Marks : 75**

1. A) List the characteristics of C language?  
B) What are the categories of operators in C? Explain the constant operator in C an example? (7 + 8)
2. A) Define an Array and its representation with an example?  
B) Write a program for Matrix Multiplication? (6+9)
3. A) List different types of files in C? Explain in brief  
B) Explain C files handling operations in detail? (7+8)
4. A) Explain recursion in brief?  
B) Write a program to find factorial of a given number using recursion (7+8)
5. A) Explain bubble sort algorithm with an example  
B) Write an algorithm to check whether a given number is prime or not (7+8)
6. A) What is Flow Chart? Explain various symbols used in Flow Chart?  
B) Draw a flow chart to determine whether a given string is a palindrome or not (7+8)
7. A) What is a function? What is the need for user defined Function?  
B) Write a program to interchange the values of two variables using functions (7+8)
8. A) Explain pointers concepts in C with an example  
B) How many types of memory allocation done in c? Explain with an example (7+8)

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