R19

Code No: 861AC

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
MCA I Semester Examinations, July/August - 2021
COMPUTER PROGRAMMING AND DATA STRUCTURES

Time: 3 Hours   Max.Marks:75

Answer any five questions
All questions carry equal marks
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1.a) What are the steps to solve the problem in a computer system?
  b) What are the characteristics of an algorithm?   [7+8]

2.a) What is type casting? Explain.
  b) Explain the structure of C program with example.   [7+8]

3.   Describe the ways of passing parameters to functions with example.   [15]

4.a) Explain the following:
     i) Automatic and static variables   ii) Scope and visibility of variables.
  b) Write a C program for finding factorial of a number using recursion. [8+7]

5.   Explain about pointer to function and how to pass the pointers to function. [15]

6.a) What is a string? Also explain different string functions with example.
  b) Write a C program to check whether a string is palindrome or not.   [8+7]

7.a) What is a pointer to structure? Give example.
  b) What is nested structure? Give example.   [8+7]

8.   Explain the operations and the implementation of Queue using Array.   [15]

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