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SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)**B.Tech II Year I Semester Supplementary Examinations August-2021****C AND DATA STRUCTURES**

(Common to CSE & CSIT)

Time: 3 hours

Max. Marks: 60

(Answer all Five Units 5 x 12 = 60 Marks)

UNIT-I

- 1 a What is the purpose of a printf() and scanf() statements? Give Syntax and examples 8M
b Explain the general form of a C program with an example 4M

OR

- 2 Explain decision statements in C along with syntax and examples 12M

UNIT-II

- 3 a Write a program for finding the largest number in an array. 6M
b What is recursion? What are the advantages and disadvantages of recursion? 6M

OR

- 4 a Explain about various categories of functions with examples 8M
b Write a C program using function to exchange two numbers using pointers. 4M

UNIT-III

- 5 a How do you define structure within a structure? Explain with an example. 6M
b Explain pointers and arrays with example. 6M

OR

- 6 a Write a C program to read and display multiple strings using pointers. 6M
b Define pointer. How to pass a pointer to a function? Explain. 6M

UNIT-IV

- 7 Write a program to perform basic operations on queue. 12M

OR

- 8 a What are the advantages and disadvantages of stack? 5M
b List out the applications of queue and explain with an example 7M

UNIT-V

- 9 a What do you mean by Searching? Explain binary search with suitable example. 8M
b Explain the applications of linked lists 4M

OR

- 10 What is meant by sorting? Write the algorithm for insertion sort and illustrate with an example 12M

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