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SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY: PUTTUR
(AUTONOMOUS)**B.Tech I Year II Semester Regular & Supplementary Examinations October-2022**
C PROGRAMMING AND DATA STRUCTURES

(Common to ME, EEE & ECE)

Time: 3 hours

Max. Marks: 60

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

UNIT-I

- 1 a Describe the Structure of C Program with neat diagram. **L2 6M**
 b Define a Variable. What are the rules for declaring a variable? **L4 6M**
- OR**
- 2 Examine with examples of different decision statements in C. **L4 12M**

UNIT-II

- 3 Determine various types of Arrays with examples. **L5 12M**
- OR**
- 4 Define String. Explain the different string handling functions with example. **L4 12M**

UNIT-III

- 5 a What is a pointer? What are the features of pointers? Write a C program to print address of a variable. **L1 6M**
 b Explain the concept of pointer to pointers with examples. **L5 6M**
- OR**

- 6 a Define union and give the general syntax for union. Write suitable example program. **L3 6M**
 b How to declare and initialize a structure? Mention with example. **L2 6M**

UNIT-IV

- 7 What are the advantages and disadvantages of stack? Write a program to illustrate stack operations. **L3 12M**

OR

- 8 Explain briefly about various types of linked lists with suitable examples. **L3 12M**

UNIT-V

- 9 What is meant by sorting? Write the algorithm for selection sort and illustrate with an example. **L3 12M**

OR

- 10 What do you mean by Searching? Explain sequential search and binary search with suitable example. **L3 12M**

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