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Reg. No: ☐☐☐☐☐☐☐☐☐☐

SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)
B.Tech I Year I Semester Regular & Supplementary Examinations May-2022
C PROGRAMMING AND DATA STRUCTURES
(Common to CE, AGE, CSE, CSIT, CSM, CIC, CAD, CCC)

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 an example.	L2	6M
	b	Explain about Input and Output functions with examples.	L4	6M

OR

2	a	Define a type conversion. What are different types of type's conversions Explain with example?	L1	6M
	b	Write a C Program to find the given number is even or odd.	L3	6M

UNIT-II

3	a	Differentiate local and global variable with example.	L2	6M
	b	Describe about type qualifiers in C.	L1	6M

OR

4	a	Define an Array. Write the syntax for declaring and initializing array with example.	L1	6M
	b	Write a C program for displaying largest element in array.	L3	6M

UNIT-III

5	a	Define union and give the general syntax for union. Write a suitable example.	L3	6M
	b	Briefly explain bit fields concept.	L2	6M

OR

6	a	What are the features of pointers? Write a C program to print address of a variable.	L3	6M
	b	Explain the concept of pointer to pointers with examples.	L4	6M

UNIT-IV

7		Explain briefly about circular linked list and circular double linked list with suitable example	L3	12M

OR

8	a	What is data structure? Explain the linear and nonlinear data structure in detail.	L2	6M
	b	What is a stack? Write the representation of stacks.	L3	6M

UNIT-V

9		Explain the algorithm for merge sort and give a suitable example.	L3	12M

OR

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

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