

**Reg. No:**

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**SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR**

(AUTONOMOUS)

**B.Tech I Year I Semester Supplementary Examinations Nov/Dec 2019**

**COMPUTER PROGRAMMING**

**(COMMON TO ALL)**

Time: 3 hours

Max. Marks: 60

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

**UNIT-I**

1 a Write an algorithm, flowchart and C program to find the sum of numbers from 1 to 'n'. **6M**

b Draw the flow chart to find the roots of a quadratic equation for all the cases. **6M**

**OR**

2 a Write detailed notes on C data types. **7M**

b What is constant? Explain different constants in C. **5M**

**UNIT-II**

3 a List and explain loop control (or) iteration statements in C. **6M**

b Write a program to check whether the given number is palindrome or not. **6M**

**OR**

4 a Write a program to find sum of the series  $1+2^2+3^2+\dots+n^2$  **6M**

b Write a program to check whether the given number is "Even" or "Odd" using GOTO statement. **6M**

**UNIT-III**

5 a How to declare and initialize a Two-dimensional array? Discuss with examples. **6M**

b Write a program to find the average marks obtained by a class of 50 students in a test. **6M**

**OR**

6 Explain the following string handling functions with example: **12M**

a. strcpy() b. strcmp() c. strcat() d.strlen() e. strncat()

**UNIT-IV**

7 a Write a C program using function to exchange two numbers using pointers. **8M**

b Write a C program to find the GCD of 2 numbers using recursion. **4M**

**OR**

8 a What is a pointer? What are the features of pointers? Write a C program to print address of a variable **6M**

b Write a C program to explain call-by-reference parameter passing technique. **6M**

**UNIT-V**

9 a List out the differences between unions, structures and arrays **6M**

b How data elements are stored under unions? Explain with an example. **6M**

**OR**

10 Write a C program to count no. of characters, spaces, lines, words of a file. **12M**

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