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**SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR**  
(AUTONOMOUS)

**B.Tech I Year I Semester Supplementary Examinations December-2021**  
**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 the structure of C program and explain. 6M
- b What is variable? Give the rules for variable declaration. 6M

**OR**

- 2 a Draw the flow chart to find the roots of a quadratic equation for all the cases. 6M
- b Define algorithm. Write algorithm for finding factorial of a number 6M

**UNIT-II**

- 3 a Write and explain about switch statement. 6M
- b Write a Program to perform arithmetic operations using switch. 6M

**OR**

- 4 a Write a program to find sum of the individual digits of a given number. 7M
- b Write and explain syntax of “for” loop. 5M

**UNIT-III**

- 5 a Define an array. How to initialize one-dimensional array? Explain with suitable Examples. 6M
- b Write a C program to sort the given array elements in Ascending order 6M

**OR**

- 6 Explain the following string handling functions with example: 12M  
i. strcpy() ii. strcmp() iii. strcat() iv. strlen() v. strncpy()

**UNIT-IV**

- 7 a Write short notes on nested functions. 6M
- b Write a C program to explain call-by-reference parameter passing technique. 6M

**OR**

- 8 a What is recursion? What are the advantages and Disadvantages of recursion? 6M
- b Write a C program to find the GCD of 2 numbers using recursion. 6M

**UNIT-V**

- 9 a Define Structure and write the general syntax for declaring and accessing members. 6M
- b How to copy and compare structure variables? Illustrate with example. 6M

**OR**

- 10 a Define union. Give the general template for union. 6M
- b List out the differences between unions, structures and arrays 6M

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