

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

**B.Tech. I Year I Semester Regular Examinations February-2024**  
**INTRODUCTION TO PROGRAMMING**

(Common to All)

**Time: 3 Hours**

**Max. Marks: 70**

**PART-A**

(Answer all the Questions 10 x 2 = 20 Marks)

- |   |   |   |     |    |    |
|---|---|---|-----|----|----|
| 1 | a | Define an algorithm.  | CO1 | L1 | 2M |
|   | b | Describe input and output statements in C.                          | CO1 | L2 | 2M |
|   | c | Write the syntax of for Loop.                                       | CO2 | L2 | 2M |
|   | d | What is meant by control statement?                                 | CO2 | L1 | 2M |
|   | e | Define Array.   | CO3 | L1 | 2M |
|   | f | How 1D array is initialized?  | CO3 | L2 | 2M |
|   | g | Define Pointer.   | CO4 | L1 | 2M |
|   | h | Differentiate structure and union.                                  | CO6 | L4 | 2M |
|   | i | What is meant by function and list the different types of function. | CO5 | L1 | 2M |
|   | j | Differentiate Call by Value and Call by Reference.                  | CO5 | L4 | 2M |

**PART-B**

(Answer all Five Units 5 x 10 = 50 Marks)

**UNIT-I**

- |           |   |   |     |    |    |
|-----------|---|---|-----|----|----|
| 2         | a | Define algorithm. Explain the characteristics of an algorithm.      | CO1 | L1 | 5M |
|           | b | Design an algorithm for finding area and circumference of a circle. | CO1 | L3 | 5M |
| <b>OR</b> |   |   |     |    |    |
| 3         | a | Define a pseudo code and explain with an example.                   | CO1 | L1 | 5M |
|           | b | Design a Pseudo code for finding average of three numbers.          | CO1 | L3 | 5M |

**UNIT-II**

- |   |   |   |     |    |    |
|---|---|---|-----|----|----|
| 4 | a | List the different decision statements available in C.                        | CO2 | L1 | 5M |
|   | b | Develop a C Program to find whether the given number is positive or negative. | CO2 | L6 | 5M |

**OR**

- |   |   |   |     |    |    |
|---|---|---|-----|----|----|
| 5 | a | Discuss the different looping statements with syntax in C.                            | CO2 | L3 | 5M |
|   | b | Construct a C Program to perform the sum of first 'n' natural numbers using for loop. | CO2 | L6 | 5M |

**UNIT-III**

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|---|---|--|-----|----|----|
| 6 | a | Define an Array. Write the syntax for declaring and initializing array with example. | CO2 | L1 | 5M |
|   | b | Develop a program to find the largest number in a 1D array.                          | CO2 | L6 | 5M |

**OR**

- |   |   |   |     |    |    |
|---|---|---|-----|----|----|
| 7 | a | List and discuss the different string handling functions.   | CO3 | L1 | 6M |
|   | b | Illustrate a C program to find reverse of a given string without using string handling functions. | CO3 | L2 | 4M |

**UNIT-IV**

- |   |   |  |     |    |    |
|---|---|--|-----|----|----|
| 8 | a | Define pointer. Write the syntax for declaring pointer with example. | CO4 | L1 | 6M |
|   | b | Explain the concept of pointer to pointers with examples.            | CO4 | L2 | 4M |

OR

- 9 a Define structure within a structure? Explain with an example. CO6 L2 5M  
b Describe about array of structures. CO6 L2 5M

**UNIT-V**

- 10 a Define function. Explain the types of functions with an example CO5 L2 5M  
b Develop a C program to swap two numbers using functions. CO5 L6 5M

OR

- 11 a Explain read () and write () operation with examples. CO6 L2 5M  
b Illustrate a C program to append the Content of file at the end of another file. CO6 L2 5M

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