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

B Tech I Year I Semester Supplementary Examinations Feb-2021

PROGRAMMING FOR PROBLEM SOLVING

(Common to CE, EEE, ME & AGE)

Time: 3 hours

Max. Marks: 60

PART-A

(Answer all the Questions 5 x 2 = 10 Marks)

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|---|----------|--|----|
| 1 | a | Specify the difference between algorithm and flowchart. | 2M |
| | b | Differentiate between break and continue. | 2M |
| | c | What is a function? Write the types of functions. | 2M |
| | d | How can you compare two strings? | 2M |
| | e | Write about different error handling functions on files. | 2M |

PART-B

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

UNIT-I

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|---|----------|--|----|
| 2 | a | Discuss the structure of C program and explain. | 5M |
| | b | Write a program to perform swapping of two numbers without using temporary variable. | 5M |

OR

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| 3 | a | Write an algorithm and flowchart to find whether the given number is prime or not. | 6M |
| | b | Explain about type conversion in C. | 4M |

UNIT-II

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| 4 | a | Describe about switch statement. | 5M |
| | b | Write a C program to perform arithmetic operations using switch. | 5M |

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| 5 | List and explain loop control (or) iteration statements in C. | 10M |
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UNIT-III

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| 6 | a | How do you declare and initialize a Two-dimensional array? Discuss with examples. | 4M |
| | b | Write a C program to print the sum of diagonal elements of 2-D matrix. | 6M |

OR

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| 7 | a | Discuss about the different categories of functions. | 6M |
| | b | Write a C program to illustrate call-by-value parameter passing technique. | 4M |

UNIT-IV

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| 8 | a | With proper examples, explain different arithmetic operations on pointers. | 6M |
| | b | Write a C program to show that pointer of any data type occupies same space. | 4M |

OR

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| 9 | a | Explain declaration and initialization of array of strings. | 5M |
| | b | Write a C program to find whether a given string is palindrome or not. | 5M |

UNIT-V

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| 10 | a | Define a Structure and write the general syntax for declaring and accessing members. | 6M |
| | b | How do you copy and compare structure variables? Illustrate with example. | 4M |

OR

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| 11 | a | Discuss command line arguments in detail with examples. | 6M |
| | b | Write a short notes on | 4M |

i. fgets() ii. fputs()

END