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

B.Tech I Year I Semester Supplementary Examinations November-2021

C PROGRAMMING AND DATA STRUCTURES

[Common to CE, AGE, CSE, CSIT, CSE (AI & ML) & CSE (IoT & CS including BCT)]

Time: 3 hours

Max. Marks: 60

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

UNIT-I

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|---|---|--|----|----|
| 1 | a | Define the syntax and use of switch statement with suitable example. | L2 | 6M |
| | b | Describe the Structure of C Program with neat diagram. | L2 | 6M |

OR

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|---|---|--|----|----|
| 2 | a | Define the syntax and use of switch statement with suitable example. | L2 | 6M |
| | b | Define a Variable. What are the rules for declaring a variable? | L4 | 6M |

UNIT-II

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|---|---|---|----|----|
| 3 | a | Write a C program for displaying largest element in array. | L3 | 6M |
| | b | How to pass array as arguments to function? Explain with one example. | L1 | 6M |

OR

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|---|---|--|----|----|
| 4 | a | Determine any four preprocessor commands. | L5 | 6M |
| | b | Define String. Explain the different string handling functions with example. | L4 | 6M |

UNIT-III

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| 5 | a | Write a C program to read and display multiple strings using pointers. | L3 | 6M |
| | b | Give difference between the structures and union. | L4 | 6M |

OR

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|---|---|---|----|----|
| 6 | a | What is a pointer? What are the features of pointers? Write a C program to print address of a variable. | L1 | 6M |
| | b | Explain the concept of void pointers with examples. | L3 | 6M |

UNIT-IV

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|---|--|--|--|----|-----|
| 7 | Implement the following single linked list operations: | | | L2 | 12M |
| | i) Insertion of a node | | | | |
| | ii) Deletion of a node | | | | |

OR

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| 8 | State any two applications of stacks and queues? With an examples | | | L4 | 12M |
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UNIT-V

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| 9 | Sort the following numbers using merge sort : 45,34,12,46,27,56,11,87,6,33,28. | | | L4 | 12M |
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OR

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|----|--|--|--|----|-----|
| 10 | Write the algorithm for selection sort and illustrate with an example. | | | L2 | 12M |
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