**Code No.ES101CS**

**METHODIST COLLEGE OF ENGINEERING & TECHNOLOGY**

**(An Autonomous Institution)**

**B.E. (CSE/AI&DS) I-Semester (AICTE) Examination, March-2023**

**Subject: PROGRAMMING FOR PROBLEM SOLVING**

**Time: 3 hours Max.Marks:60**

**Note: Missing data, if any, maybe suitably assumed.**

**PART-A**

**Answer All the questions.**

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| **Q.No.** | **Questions** | **Marks** | **CO** | **BTL** |
| 1. a | Name any five features of C programming Language. | 2 | CO1 | L1 |
| b | Describe primary and secondary memory | 2 | CO1 | L1 |
| c | How to declare, define and initialize the syntax of Loops? | 2 | CO2 | L1 |
| d | Discuss the need for operator precedence in C | 2 | CO2 | L2 |
| e | What are the types of sorting available in C? | 2 | CO3 | L1 |
| f | What is linear search? | 2 | CO3 | L1 |
| g | Illustrate the Null pointer with sample C code | 2 | CO4 | L1 |
| h | Justify the need for union data type | 2 | CO4 | L2 |
| i | How to open a file in C? | 2 | CO5  | L1 |
| j | Outline the Conditional Compilation | 2 | CO5  | L2 |

**PTO**

**PART-B**

**Answer Any Five questions**.

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| **Q.No.** |  | **Questions** | **Marks** | **CO** | **BTL** |
| 2. | a | Define pseudocode and give its importance with an example. | 4 | CO1 | L1 |
| b | Explain primary data types used in C? | 4 | CO1 | L1 |
| 3. | a | Illustrate the concept of nested for loop with suitable Example? | 4 | CO2 | L2 |
| b | Write a C program to print the day of the week using switch case. | 4 | CO2 | L4 |
| 4. |  | Apply any technique and write a C program to sort the given array in ascending or descending order a[ ]={24 , 7 , 12 , 18 , 6 , 14} | 8 | CO3 | L4 |
|  |  |  |  |  |
| 5. | a | Write a program to swap two numbers using functions | 4 | CO4 | L4 |
| b | Classify what are the standard functions and libraries in c | 4 | CO4 | L2 |
| 6. | a | Write a simple C program to read and write contents to a text file | 4 | CO5 | L4 |
| b | How to create and store information in a text file in C? | 4 | CO5 | L2 |
| 7. | a | Distinguish between if and switch statements | 4 | CO1 | L2 |
| b | Describe various control structures available c | 4 | CO2 | L2 |
| 8. |  | Compare insertion with bubble sort with suitable examples. | 8 | CO3 | L4 |
| 9. | a | Explain the difference between ‘call by value’ and ‘call by reference’ using pointers | 4 | CO4 | L2 |
| b | Discuss the file handling functions feof ( ) and fseek( ) with examples. | 4 | CO5 | L2 |

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