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**SNS College of Technology, Coimbatore-35.**

**(Autonomous)**

**B.E/B.Tech- Internal Assessment -II**

**Academic Year 2023-2024(EVEN)**

**Second Semester (Regulation R2023)**

**COMPUTER SCIENCE AND ENGINEERING**

**23ITT101 – PROGRAMMING IN C AND DATA STRUCTURES**

**B**

**Time: 1<sup>1/2</sup> Hours**

**Maximum Marks: 50**

**Answer All Questions**

**PART A — (5 x 2 = 10 Marks)**

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|--|-----|-----|
| 1. Define function and its types of arguments.                 | CO2 | REM |
| 2. Write the syntax for function declaration. Give an example. | CO2 | APP |
| 3. Differentiate array and structure.                          | CO3 | ANA |
| 4. Define data structure.                                      | CO3 | UND |
| 5. List out the types of Data structures                       | CO3 | REM |

**PART B — (2 x 13 = 26 Marks & 1 x 14 = 14 Marks)**

6. (a) Write a C program to add 2 numbers by using with argument with return type method and with argument, without return type method
- CO2    APP    13
- (OR)
- (b) Write a C Program to Search a given number in the given array.
- CO2    APP    13
7. (a) Explain briefly about the concept of one dimensional array with declaration and initialization with an example
- CO3    UND    13
- (OR)
- (b) Given an array of size 5, the task is to sort this array in ascending order in C.
- CO3    APP    13
- Example: Input: arr[] = {63, 23,14, 12, 9}
- Output: {9,12,14, 23,63}
8. (a) Construct the c program for swapping 2 numbers with temporary variable using call by reference method with sample output
- CO2    APP    14
- (OR)
- (b) Construct a program to display students name, mark for 5 subjects, average of marks and grade using structure
- CO3    APP    14

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**(Note: Und-Understand    Rem-Remember    Ana-Analyze    App-Apply)**