SNS COLLEGE OF TECHNOLOGY

(An Autonomous Institution)
Coimbatore – 641 035.

A

B.E / B.Tech – Internal Assessment Exam- I

Academic Year 2023-2024 (ODD)

FIRST SEMESTER (REGULATION R2023)

23CST101- PROBLEM SOLVING AND C PROGRAMMING

Time: 1$^{1/2}$ Hours   **Maximum Marks: 50**

Answer All Questions

PART A — (5 x 2 = 10 Marks)

1.	Define Computer Software and list the types of software with an example	CO1	REM
2.	Draw the flow chart for swapping two numbers without 3rd variable	CO1	APP
3.	Figure out the pseudo code for checking whether the given number is even or odd	CO1	APP
4.	List out fundamental rules for an identifier.	CO2	UND
5.	Give the difference between structure and union	CO2	REM

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

6. (a)	i) Explain in detail about Algorithmic problem solving with neat diagram	CO1	UND	8
	ii) Develop the flowchart for checking whether the given year is leap year or not	CO1	APP	4

(OR)

(b)	Draw flow chart along with the pseudo code to compute			
	i) Greatest of three numbers	CO1	APP	7
	ii) Factorial of the given number	CO1	APP	8

7. (a)	(i) Enumerate the Structure of C programming with a Sample C program.	CO2	REM	10
	(ii)Identify the possible errors that occurs during executing a C program	CO2	UND	3

(OR)

(b) Define Data type. Interpret about Derived and User-Defined Data type. Write the significance of each data type.　　CO2　UND　13

8. (a) Give the algorithm (Normal English), Flowchart and Pseudo code to Reverse the given number　　CO1　APP　14

(OR)

(b) Ravi buys an old scooter for Rs. A and spends Rs. B on its repairs. If he sells the scooter for Rs. C, what is his gain %? Write an algorithm and Pseudo code to compute the gain % received by Ravi　　CO2　APP　14