Reg.No:							

SNS College of Technology, Coimbatore-35.
(Autonomous)
B.E/B.Tech- Internal Assessment -I
Academic Year 2023-2024(ODD)
First Semester

B

23CST101 –PROBLEM SOLVING AND C PROGRAMMING
[Common to CSE, IT, AI/ML, EEE]

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

Answer All Questions

PART-A (5 x 2 = 10 Marks)

1.		Define computer. And list out the various characteristics.		CO1	Und
2.		Define algorithm and state its qualities?		CO1	Und
3.		Differentiate Iteration and Recursion.		CO1	Ana
4.		Describe the variable and list down the rules for variables.		CO1	Und
5.		Mention the various Tokens in C Programming language.		CO1	Und
PART–B (13 X 2 = 26 Marks)					
6.	(a)	Illustrate in detail about the building blocks of algorithms with your own example.	13	CO1	Ana
		(or)			
	(b)	i) Explain in details about Computer Hardware and Software.	13	CO1	Und
7.	(a)	Draw a flow chart and write the algorithm and pseudo code for the following A. To check the greatest of three Numbers B. To find the factorial of the given number	13	CO1	Ana
		(or)			

<table>
<tr><td></td><td>(b)</td><td>i) Demonstrate the Structure of C Programming with your examples.
ii) Explain the process of compilation and linking.</td><td>7

6</td><td>CO2</td><td>Ana

Und</td></tr>
<tr><td>8.</td><td>(a)</td><td>Read total shopping amount purchased in the shop, and then apply the discount as per the following discount criteria then calculate and print the final amount that has been paid by the customer after subtracting the discount amount

<table><tr><th>Shopping Amount</th><th>Discount in %</th></tr><tr><td>5000 and above</td><td>25</td></tr><tr><td>1000 to 4999</td><td>10</td></tr><tr><td>Below 1000</td><td>5</td></tr></table>
Write down the algorithm, Flowchart and Pseudocode for the above-mentioned problem.</td><td>14</td><td>CO1</td><td>Ana</td></tr>
<tr><td></td><td>(b)</td><td>Analyze and illustrate the various data types used for student management system.</td><td>14</td><td>CO2</td><td>Ana</td></tr>
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(Note: U-Understand R-Remember Ana-Analyze App-Apply)

Prepared By **Verified By** **HoD/Dean**