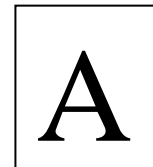Reg.No: ☐☐☐☐☐☐☐☐

SNS College of Technology, Coimbatore-35
(Autonomous)
B.E/B.Tech- Internal Assessment -II
Academic Year 2022-2023(ODD)
First Semester

A

19CST101 – PROGRAMMING FOR PROBLEM SOLVING
[Common to IT, CSE, ECE, EEE, E&I, BME]

Time: 1.5 Hours   Maximum Marks: 50

Answer All Questions

PART-A (5 x 2 = 10 Marks)

			CO	Blooms
1.	Define data type in C. Give example.		CO2	R
2.	Distinguish between while. and do. while statement in C.		CO2	Ana
3.	Show array declaration and initialization with example.		CO3	U
4.	Declare an two dimensional array which receives 10 rows & 25 columns.		CO3	App
5.	Define String and use of '\0' character in string.		CO3	R
	PART–B (13+13+14=40)			
6.	(a)	Develop a C program to implement all operators concept and explain it.	13	CO2	App
		(or)			
	(b)	Build a C program to calculate the sum of first n natural numbers using while, do while & for loop.	13	CO2	App
7.	(a)	i. Construct a C program to perform matrix multiplication for the matrix size 3 X 3.	10	CO3	App
		ii. List the Characteristics and advantages of Array.	3	CO3	R
		(or)			

	(b)	i.	Build a C Program to find the number of distinct elements in a sorted array.	10	CO3	App
		ii.	Choose the string functions to find the length of given string S1= "welcomtosnsct".	3	CO3	App
8	(a)	i.	An Armstrong number is a three-digit integer such that the sum of the cubes of its digits is equal to the number itself. For example, 371 is an Armstrong number since $3^3 + 7^3 + 1^3 = 371$. Write a c program to find whether a given number 417 is an Armstrong number or not.	7	CO2	App
		ii.	Utilize the looping concept to generate the given Patterns 1 10 101 1010 10101 101010 1010101 10101010 101010101	7	CO2	App
			(or)			
	(b)		Ram and Seetha studying in SNS college of Technology, The professor Anuman want to update the details of Ram & Seetha in ERP portal so that the professor want to perform the string operations with the following strings. String1=SNSCT String2=DEPARTMENT OF CSE strcat(), strcmp(), strncpy(), strrev(),strupr(),strlwr(),strlen()	i. 14	CO3	App

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(Abbrevation : U-Understand   R-Remember   Ana-Analyze   App-Apply C- Create)