USN									

FIRST Semester B. E. Degree Semester End Examination (SEE), Jan/ Feb 2024

Problem Solving using C

(Model Question Paper - 1)

[Time: 3 Hours]   [Maximum Marks: 100]

Instructions to students:

i.   **Answer FIVE FULL Questions as per choice.**
ii. **Use BLACK ball point pen for text, figure, table, etc.**
iii. **Assume missing data, if any.**

			Marks	CO	RBT Level
1.	**a)**	Explain Stored Program Concept with a neat diagram	[04 Marks]	CO2	L2
	b)	Briefly describe Basic organization of computers with a neat diagram	[08 Marks]	CO2	L2
	c)	Briefly describe the History of Computers with applications.	[08 Marks]	CO1	L3
		OR			
2.	**a)**	What is the concept of Problem solving. Explain with an example.	[06 Marks]	CO1	L3
	b)	Describe the Basic structure of C program.	[07 Marks]	CO2	L2
	c)	Define Algorithm and Flowchart with its features and an example.	[07 Marks]	CO2	L2
3.	**a)**	Explain the C Data types with its storage requirements with an example.	[10 Marks]	CO5	L2
	b)	Differentiate between if-then-else and nested if statement with an example along with flowchart.	[10 Marks]	CO2	L2
		OR			
4.	**a)**	What are the various types of operators used in c. Explain any three categories.	[06 Marks]	CO2	L2
	b)	What are unconditional control structures in C. Describe with an example.	[06 Marks]	CO4	L3
	c)	Explain the Switch Control structure with an example along with flowchart.	[08 Marks]	CO2	L2
5.	**a)**	What are two dimensional arrays. Explain with Matrix Multiplication example.	[12 Marks]	CO2	L2
	b)	What is Binary searching. Write a C Program for the same.	[08 Marks]	CO2	L2
		OR			
6.	**a)**	Write a C Program to perform Binary sorting with an example.	[10 Marks]	CO4	L3
	b)	Write a C Program to perform string operations such as finding string length, compare and Concatenate two strings.	[10 Marks]	CO2	L2
7.	**a)**	Define Functions and its various categories with an example foe each.	[10 Marks]	CO4	L3

	b)	Define Recursive functions with an example C Program.	[10 Marks]	CO4	L3

OR

8.	a)	What are File pointers? Write a C Program to open a File, Close a File, and Read Data from Files.	[05 Marks]	CO1	L3
	b)	Write a C program to copy a text file to another, reading both the input file name and target file name	[05 Marks]	CO1	L2
	c)	Develop a program using pointers to compute the sum, mean and standard deviation of all elements stored in an array of N real numbers.	10 Marks]	CO4	L2
9.	a)	What are Structures. Differentiate between Structures, unions and enumerated data type.	[08 Marks]	CO4	L5
	b)	Implement structures to read, write and compute average- marks of the students, list the students scoring above and below the average marks for a class of N students	[12 Marks]	CO4	L3

OR

10.	a)	Explain with example the concept of structure within structures.	[11 Marks]	CO2	L2
	b)	Explain Arrays within structures with an example.	[09 Marks]	CO4	L2

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