MARRI LAXMAN REDDY
INSTITUTE OF TECHNOLOGY AND MANAGEMENT
(AN AUTONOMOUS INSTITUTION)
(Approved by AICTE, New Delhi & Affiliated to JNTUH, Hyderabad)
Accredited by NBA and NAAC with 'A' Grade & Recognized Under Section2(f) & 12(B)of the UGC act,1956

I B.Tech I Sem Supply End Examination, April 2022
Programming for Problem Solving
(CIVIL, MECH, ECE)

Time: 3 Hours.   Max. Marks: 70

Note: 1. Question paper consists: Part-A and Part-B.
2. In Part – A, answer all questions which carries 20 marks.
3. In Part – B, answer any one question from each unit.
Each question carries 10 marks and may have a, b as sub questions.

PART- A
(10*2 Marks = 20 Marks)

1.	a)	What are the differences between while and do-while statements?	2M	CO1	BL1
	b)	Give suitable example for implicit and explicit type conversion	2M	CO1	BL1
	c)	What are the differences between a variable and an array?	2M	CO2	BL1
	d)	Can we copy elements of array A[] to array B[] by simply B = A; statement? Justify your answer.	2M	CO2	BL3
	e)	Define a file? What are the modes of text files?	2M	CO3	BL1
	f)	What is the task of preprocessor?	2M	CO3	BL1
	g)	What are the difference between malloc() and calloc() functions?	2M	CO4	BL1
	h)	What do you mean by signature of a function?	2M	CO4	BL1
	i)	Define time complexity? What is the worst case time complexity of bubble sort?	2M	CO5	BL1
	j)	Show each pass to sort the list 40, 30, 20, 10 using selection sort.	2M	CO5	BL3

PART- B
(10*5 Marks = 50 Marks)

2	Write a C program to perform binary arithmetic operations using switch statement.	10M	CO1	BL3
	OR			
3	Define a flowchart? Draw the flowchart to find the smallest of given three numbers.	10M	CO1	BL1
4	Define a pointer? Write a C program to print array elements using a pointer.	10M	CO2	BL3
	OR			
5	Explain different string handling function in C.	10M	CO2	BL4
6	Explain include, define, undef, if preprocessor commands.	10M	CO3	BL4

OR

7	Write a C program to demonstrate call by value parameter passing mechanism.	10M	CO3	BL3
8	Arrange the following numbers in ascending order using Selection sort: 19, 12, 6, 13, 9, 0, 11, 10, 1	10M	CO4	BL3

OR

9	Write an algorithm to find a given number is prime or not?	10M	CO4	BL3
10	Define a recursion? Write a C program to find the sum of first n natural numbers using recursion.	10M	CO5	BL63

OR

11	Explain different file input and output functions with an example program.	10M	CO5	BL4

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