Course Code: 2010501 Roll No: **MLRS-R20**

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, October 2022

Programming for Problem Solving

(Common to all branches)

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)	Define a flowchart? Draw the flow chart to find the addition of two numbers.	2M	CO1	BL1, BL3
	b)	What is a variable? What are the rules to declare a variable?	2M	CO1	BL1
	c)	Define an array? What are the differences between an array and a variable?	2M	CO2	BL1, BL2
	d)	Explain if-else conditional statement with an example.	2M	CO2	BL1
	e)	What are the differences between structure and a union?	2M	CO3	BL2
	f)	Define a pointer? Explain pointer with an example.	2M	CO3	BL1
	g)	Define a function? What is the use of signature of a function?	2M	CO4	BL1
	h)	What are the limitations of a function?	2M	CO4	BL1
	i)	Define a preprocessor directive? Name few preprocessor directives.	2M	CO5	BL1
	j)	Define a file? What is a file structure?	2M	CO5	BL1

PART- B

(10*5 Marks = 50 Marks)

2	a)	Explain the structure of a C program.	5M	CO1	BL1
	b)	What is precedence and associativity in an expression? What is their need?	5M	CO1	BL1
		OR			
3		Explain different types of operators in C with an example.	10M	CO1	BL1
4	a)	Write a C program to check the given alphabet is vowel or consonant using switch() statement.	5M	CO2	BL3
	b)	Explain nested if-else statement with an example.	5M	CO2	BL1
		OR			
5		Explain jumping statements (break, continue and goto) with an example program.	10M	CO2	BL1

6	a)	Explain nested structures with an example.	5M	CO3	BL1
	b)	Explain the use of pointers in self-referential structures.	5M	CO3	BL1
		OR			
7		Explain any five string handling functions with an example.	10M	CO3	BL1
8	a)	Define a recursive function? Write a C program to find the factorial of a given number using recursive function.	5M	CO4	BL1, BL3
	b)	Explain malloc() DMA function with an example program.	5M	CO4	BL1, BL3
		OR			
9		Explain call by value and call by reference parameter passing mechanisms with an example program.	10M	CO4	BL1, BL3
10	a)	Explain include, define, undef, pre-processor directives with an example.	5M	CO5	BL1
	b)	What are the differences between text and binary files?	5M	CO5	BL2
		OR			
11		Explain file status and file positioning functions with an example.	10M	CO5	BL1, BL3

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CO: Course Outcome **BL: Blooms Taxonomy Levels**