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 Regular/Supply End Examination, April 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 an algorithm? Write an algorithm to find the addition of two numbers.	2M	CO1	BL1
	b)	Define an identifier? What are the rules to declare an identifier?	2M	CO1	BL1
	c)	Define an array? What are the differences between an array and a variable?	2M	CO2	BL1
	d)	What are the differences between while and do-while statements?	2M	CO2	BL2
	e)	What are the differences between structure and a union?	2M	CO3	BL2
	f)	Define a string? Write the syntax to declare a string.	2M	CO3	BL1
	g)	Define a function? How to declare a user defined function?	2M	CO4	BL1
	h)	What are the limitations of a recursive function?	2M	CO4	BL1
	i)	Define a preprocessor directive? Name few preprocessor directives.	2M	CO5	BL1
	j)	What is a file pointer? Explain the use of file pointer while creating a file.	2M	CO5	BL1

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

2	a)	Explain type conversions with an example.	5M	CO1	BL1
	b)	What are command line arguments? Explain briefly.	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 number is prime or not.	5M	CO2	BL3
	b)	Explain switch statement with an example.	5M	CO2	BL2
		OR			
5		How to create a 2D array in C? Write a C program to find the addition of two matrices.	10M	CO2	BL1, BL3

6	a)	Explain an array of structures with an example.	5M	CO3	BL1
	b)	Explain Enumeration Data types with an example.	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 auto and static storage class with an example.	5M	CO4	BL1

OR

9	What is the use of DMA functions? Explain malloc() and calloc() DMA functions with an example.	10M	CO4	BL1, BL3

10	a)	Explain include, define, undef, pre-processor directives with an example.	5M	CO5	BL1
	b)	Write a C program to copy the contents of one file to another file.	5M	CO5	BL3

OR

11	Explain file status and file positioning functions with an example.	10M	CO5	BL1

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