Final :- 13-12-2024

MLRS- R19

Course Code: 1910501 Roll No:

MARRI LAXMAN REDDY
INSTITUTE OF TECHNOLOGY AND MANAGEMENT
(AN AUTONOMOUS INSTITUTION)
(Approved by AICTE, New Delhi & Affiliated to JNTUH, Hyderabad)
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I B.Tech I Sem Supply Examination, December 2021
PROGRAMMIMG FOR PROBLEM SOLVING
(CIVIL, MECH & ECE)

Time: 3 Hours. **Max. Marks: 70**

Note: 1. This question paper contains two parts A and B.
2. Part- A is Compulsory. Answer all Questions which carries 20 marks.
3. Part – B consists 5 units. 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=20Marks)

1.	a)	What are the differences between break and continue statements?	2M	CO3	BL4
	b)	Write a C program to find the greatest of two numbers using ternary operators.	2M	CO3	BL3
	c)	What are the differences between a variable and an array?	2M	CO5	BL4
	d)	Define a void pointer? What are the advantages using void pointer?	2M	CO5	BL1
	e)	Define a file? What are the modes to open binary files?	2M	CO5	BL1
	f)	Define a macro?	2M	CO4	BL1
	g)	What are the difference between malloc() and calloc() functions?	2M	CO4	BL4
	h)	Write a C program to add two numbers using functions?	2M	CO5	BL3
	i)	Find out number of comparisons to sort {5,4,3,2,1}.	2M	CO6	BL3
	j)	Define time complexity? What is the worst case time complexity of bubble sort?	2M	CO6	BL1

PART - B

(5*10 Marks=50Marks)

UNIT-I

2	a)	Explain about auto and extern storage classes with an example?	5M	CO3	BL2
	b)	Explain bitwise and logical operators with an example?	5M	CO3	BL2

OR

3	a)	Explain type conversions with an example?	5M	CO3	BL2
	b)	Write an algorithm and draw the flow chart to find the minimum of three numbers?	5M	CO1	BL3

UNIT-II

4	a)	Explain strcat() and strcpy() string handling functions with an example?	5M	CO5	BL2
	b)	Write a C program to find the transpose of a given matrix?	5M	CO5	BL3

OR

5	a)	Define a structure? Explain an array of structures with an example.	5M	CO5	BL1
	b)	What are the differences between scanf() and gets() functions? Explain.	5M	CO5	BL4

UNIT-III

6	a)	Define file pointer? Explain text and binary files.	5M	CO5	BL1
6	b)	Discuss in detail about the file positions functions.	5M	CO5	BL2

OR

7	a)	Write a C program to copy one file to another file.	5M	CO5	BL3
	b)	List and explain different pre-processor commands.	5M	CO5	BL2

UNIT-IV

8	a)	What are DMA functions? Why we use DMA functions? Explain different DMA functions with an example?	10 M	CO4	BL2, 3

OR

9	a)	Define recursion? Write a C program to find the factorial of a given number using recursion.	5M	CO4	BL1, 3
	b)	Explain call by reference mechanism with an example.	5M	CO4	BL2

UNIT-V

10	a)	Define linear search? Write a C program to implement linear search.	5M	CO6	BL1, 3
	b)	Apply the bubble sort method to arrange the following elements in ascending order. {27, 36, 6, 9, 79, 2, 3, 0,20}	5M	CO6	BL3

OR

11	a)	Explain selection sort algorithm with an example.	5M	CO6	BL2
	b)	Write a C program to sort the given names in alphabetical order.	5M	CO6	BL3

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