

CMR TECHNICAL CAMPUS
UGC AUTONOMOUS
B. Tech. I Sem Supply End Examinations, January-2024
Programming for Problem solving
Common to CSE,IT&CSM

Time: 3 Hours

Max. Marks: 70

Note

- i. This Question paper contains Part- A and Part- B.
- ii. All the Questions in Part A are to be answered compulsorily.
- iii. All Questions from Part B are to be answered with internal choice among them.

PART-A

10 X 02 = 20 Marks

		Marks	CO	BL
1.	a	2	CO1	3
	b	2	CO1	2
	c	2	CO2	3
	d	2	CO2	2
	e	2	CO3	3
	f	2	CO3	2
	g	2	CO4	3
	h	2	CO4	2
	i	2	CO5	3
	j	2	CO5	2

PART- B

5 X 10 = 50 Marks

		Marks	CO	BL
2.	a	5	CO1	2
	b	5	CO1	3
	OR			
3	a	5	CO1	2
	b	5	CO1	3
4	a	5	CO2	2

	b	Write a function to compute mean, variance, Standard Deviation, sorting of n elements in a single dimension array.	5	CO2	3
		OR			
5	a	Explain how a one-dimensional array is declared, initialised and elements are accessed.	5	CO2	2
	b	Write a C Program to find the length of a given string without using strlen() function.	5	CO2	3
6	a	Explain about various pre-processor commands.	5	CO3	2
	b	Write a C program which copies one file to another file.	5	CO3	3
		OR			
7	a	Write about file modes.	5	CO3	2
	b	Write a C program to display the contents of a file to standard output device	5	CO3	3
8	a	Explain how a function is declared, called and defined with example.	5	CO4	2
	b	Write program to find n th term Fibonacci Series using recursion.	5	CO4	3
		OR			
9	a	Write about call by reference with an example program.	5	CO4	4
	b	Write about Dynamic Memory Allocation functions with syntax and example.	5	CO4	2
10	a	Write an algorithm to find the minimum, maximum of 3 given numbers.	5	CO5	3
	b	Write a C Program to implement insertion sort.	5	CO5	2
		OR			
11	a	Write an algorithm to implement Binary Search.	5	CO5	2
	b	Write a algorithm to generate whether given number is prime number or not.	5	CO5	3

CO : Course Outcomes

BL : Bloom's Taxonomy Levels

L 1 : Remembering

L 2 : Understanding

L 3 : Applying

L 4 : Analysing

L 5 : Evaluating

L 6 : Creating

**CMR TECHNICAL CAMPUS
UGC AUTONOMOUS**

**B. Tech. II Sem Supply End Examinations, January-2024
Programming for Problem solving
Common to CE, ME, AIML, CSQ, ECE&CSD**

Time: 3 Hours

— Max. Marks: 70

Note

- i. This Question paper contains Part- A and Part- B.
- ii. All the Questions in Part A are to be answered compulsorily.
- iii. All Questions from Part B are to be answered with internal choice among them.

PART-A

10 X 02 = 20 Marks

	Marks	CO	BL
1. a Write an algorithm to find sum of two given numbers.	2	CO1	3
b Differentiate while and do-while	2	CO1	2
c Define one-dimensional and two-dimensional arrays.	2	CO2	2
d Define and write an example of self-referential structure.	2	CO2	3
e Differentiate text and binary files.	2	CO3	3
f Write about fseek().	2	CO3	2
g Differentiate Static and Dynamic Memory Allocation.	2	CO4	3
h Define recursion and a recursive function	2	CO4	2
i Find the time complexity of prime number program	2	CO5	3
j Define Searching and list searching techniques.	2	CO5	2

PART- B

5 X 10 = 50 Marks

	Marks	CO	BL
2. a With a neat sketch, explain about components of a computer.	5	CO1	2
b Write a program for finding the max and min from the three numbers.	5	CO1	3
OR			
3. a Explain about datatypes in C.	5	CO1	2
b Write a C program to find the sum of individual digits of a positive integer.	5	CO1	3
4. a Explain about String handling functions.	5	CO2	2
b Write a C program to find the minimum, maximum in an array of integers.	5	CO2	3
OR			
5. a Explain about pointer to arrays.	5	CO2	2
b Write a C Program to find the length of a given string without using strlen() function.	5	CO2	3

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6	a	Explain about various pre-processor commands.	5	CO3	2
	b	Write a C program to display the contents of a file to standard output device	5	CO3	3
OR					
7	a	Differentiate text and binary files.	5	CO3	3
	b	Write a C program which copies one file to another file.	5	CO3	3
8	a	Write about call by value with an example program.	5	CO4	2
	b	Write a program to find factorial of a number using recursion.	5	CO4	3
OR					
9	a	Write about Dynamic Memory Allocation functions with syntax and example.	5	CO4	2
	b	Explain how an array is passed to a function with example.	5	CO4	4
10	a	Write an algorithm to find the roots of a Quadratic equation.	5	CO5	2
	b	Write an algorithm to implement bubble sort.	5	CO5	3
OR					
11	a	Write an algorithm to implement Linear Search.	5	CO5	2
	b	Write an algorithm to implement selection sort.	5	CO5	3

CO : Course Outcomes

BL : Bloom's Taxonomy Levels

L 1 : Remembering

L 2 : Understanding

L 3 : Applying

L 4 : Analysing

L 5 : Evaluating

L 6 : Creating
