



B.Tech I Semester Supplementary Examinations, June 2024

C Programming for Problem Solving (Common to EEE, ECE, CSE, CSE(AI&ML) and CSE(DS))

Maximum Marks: 60

Date: 03.07.2024 Duration: 3 hours

- Note:**
1. This question paper contains two parts A and B.
 2. Part A is compulsory which carries 10 marks. Answer all questions in Part A.
 3. Part B consists of 5 Units. Answer any one full question from each unit.
 4. Each question carries 10 marks and may have a, b, c, d as sub questions.

Part-A

All the following questions carry equal marks		(10X1M=10 Marks)	CO No.	Bloom Tx
1.	a	Write the ternary operators with examples.	CO1	I
	b	Build a program to print a number from 1 to 10.	CO1	III
	c	Define array with its syntax.	CO2	I
	d	What is sorting and list out some of sorting techniques.	CO2	II
	e	What is function prototype?	CO3	I
	f	Build a program to find area of circle using function.	CO3	III
	g	How to declare a structure for student mark sheet?	CO4	I
	h	Define union with examples.	CO4	II
	i	Evaluate various error handling techniques in C.	CO5	IV
	j	Compile various file pointer positioning functions of C.	CO5	III

Part-B

Answer All the following questions.		(5X10M=50Marks)		
2	Explain the various types of Operators in C. [10M]		CO1	II
OR				
3	Construct a program to find whether a given number is positive or negative or zero. a) [10M]		CO1	III
	Sample Input	Sample Output		
	45	Number is positive		
	-35	Number is negative		
	0	Number is equal to 0		
4	Build a program to arrange the values 56, 34, 23, 64, 12 in ascending order using bubble sorting technique. [10M]		CO2	III

	OR		
5	Build a program for comparison of Linear and binary search with proper explanation. [10M]	CO2	III
6	Explain briefly on malloc() dynamic memory allocation with suitable example. [10M]	CO3	III
	OR		
7	Explain briefly on pointers to function with suitable examples. [10M]	CO3	III
8	Explain union with suitable examples. [10M]	CO4	II
	OR		
9	Explain briefly on Self-referential structures with examples. [10M]	CO4	IV
10	Explain briefly on all random-access file methods with a program. [10M]	CO5	IV
	OR		
11	Compose a program to read student marks data from a file and to calculate Total, Average and Result to write in another file. [10M]	CO5	V