

[Time: 02.30 Hours]

[Max. Marks-60]

Instructions to the candidates:

- 1) All questions compulsory.
- 2) Neat diagrams must be drawn wherever necessary.
- 3) Figures to the right indicate full marks.
- 4) Assume suitable data, if necessary.

Q. No.	Sub Question	Marks	CO	BL
1	a) Explain the building blocks of algorithm. Write an algorithm to find summation of all natural numbers from 20 to 25.	[06]	CO1	L3
	b) Define token and explain any four tokens in C with suitable example.	[06]	CO1	L2
2	a) Describe with suitable example, break and continue statements in C program.	[04]	CO2	L2
	b) Write a C program to display all factors of a given integer. E.g. factors of 6 are : 1,2,3,6	[06]	CO2	L3
	c) Explain Switch case statement in C with its proper syntax and example. Describe the role of break in switch case statement.	[05]	CO2	L2
3	a) With suitable example show the working of a function. Describe and compare actual and formal parameters in functions.	[06]	CO3	L2
	b) Write a C program to swap two numbers using function with call by reference.	[06]	CO3	L3
	OR			
	c) Write a C program to find factorial of a given number using function with call by value.	[06]	CO3	L3
	d) Explain the built in functions and user defined functions in C.	[03]	CO3	L2
4	a) Define Structure in C. Write a C program to create a structure to store student's Roll Number, Name, Marks and display the entered information.	[06]	CO4	L3
	OR			
	b) Demonstrate the use of array and write a program to print first five elements of the array.	[06]	CO4	L3
	c) Explain Union in C. Differentiate between structure and union with example.	[06]	CO4	L2
	d) Explain pointers with reference operator and dereference operator. State the applications of pointers.	[06]	CO4	L2

- BL – Bloom's Taxonomy Levels (1- Remembering, 2- Understanding, 3 – Applying, 4 – Analyzing, 5 –Evaluating, 6 - Creating).