CBCS SCHEME

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BESCK204E/BESCKE204

Second Semester B.E./B.Tech. Degree Examination, June/July 2023
Introduction to C Programming

Time: 3 hrs. Max. Marks: 100

Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.
2. M : Marks , L: Bloom's level , C: Course outcomes.

		Module – 1	M	L	C
Q.1	a.	Explain the major components of a computer and explain briefly.	8	L2	CO1
	b.	Explain the structure of a C program with an example.	6	L2	CO2
	c.	Explain an identifier. What are the rules to define an identifiers?	6	L2	CO2
		OR			
Q.2	a.	Explain the different types of files used in C.	10	L2	CO2
	b.	Discuss the following with an example: (i) Algorithm (ii) Flow chart (iii) Pseudo code	10	L2	CO2
		Module – 2			
Q.3	a.	Explain the logical operators and bitwise operators used in C with suitable examples.	7	L2	CO2
	b.	Write a C program to print the following patter : 1 1 2 1 1 2 3 2 1 1 2 3 4 3 2 1 1 2 3 4 5 4 3 2 1	8	L2	CO2
	c.	Explain type casting and type conversion with suitable examples.	5	L2	CO2
		OR			
Q.4	a.	Explain the syntax of a switch statement. Write a C program to perform different arithmetic operations on two integers using switch statement.	10	L2	CO2
	b.	Explain if, if else and nested if-else along with programming example.	10	L2	CO2
		Module – 3			
Q.5	a.	Explain the need for functions in C. With an example code, explain the following : (i) Function Declaration (ii) Function definition (iii) Function call (iv) Argument/Parameter of a function	10	L2	CO4
	b.	Write a C program to sort a given array of N elements using Bubble sort. Display the different passes in the output.	10	L2	CO3
		OR			
Q.6	a.	Explain the various storage classes specifiers used in C.	6	L2	CO3
	b.	Write a C program to find the largest of given three integers using functions.	7	L2	CO3
	c.	What is a Recursive function? Write a C program to find the factorial of a given number using recursion.	7	L2	CO4
		Module – 4			
Q.7	a.	Write a C program to find the transpose of a given n × n matrix by passing matrix to a function.	10	L2	CO3
	b.	Explain the different functions used to read and write characters.	10	L2	CO4

		OR			
Q.8	**a.**	With pictorial representation, explain how a 1D and 2D arrays are stored in the memory. Give suitable examples.	**10**	**L2**	**CO3**
	b.	Write a C program to perform matrix multiplication, also validate the rules of matrix multiplication.	**10**	**L2**	**CO3**
		Module – 5			
Q.9	**a.**	What is a reference and dereference operator used to access a pointer variable. Write a C program to test whether a given number is positive, negative or zero using pointers.	**10**	**L2**	**CO3**
	b.	Write a C program using structures to read, display, add, subtract two complex numbers.	**10**	**L2**	**CO3**
		OR			
Q.10	**a.**	Write a C program to reverse a string with or without built in function.	**10**	**L2**	**CO3**
	b.	Explain the following with an example with respect to structures: (i) Structure name (ii) Member of a structure (iii) Accessing a structure	**10**	**L2**	**CO3**

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