CBCS SCHEME

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BESCK204E / BESCKE204

Second Semester B.E./B.Tech. Degree Examination, June/July 2024
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.	Define Computer. With neat block diagram, explain different components of a computer.	10	L2	CO1
	b.	Explain Input and Output devices.	10	L2	CO1
		OR			
Q.2	a.	Explain the following with neat syntax printf( ) and scanf( ) functions	8	L2	CO1
	b.	Define variable. Explain the rules for declaring the variables.	6	L2	CO1
	c.	Explain the structure of 'C' program.	6	L2	CO1
		Module – 2			
Q.3	a.	What are Iterative statements? Explain them with neat syntax.	10	L2	CO2
	b.	Write a C program to find the mechanical Energy of a particle using $E = mgh + \frac{1}{2}MV^2$.	6	L3	CO2
	c.	Explain the use of goto statement with example.	4	L2	CO2
		OR			
Q.4	a.	Explain Relational operators in C Language with examples.	6	L2	CO2
	b.	With proper syntax, explain different conditional branching statements. Give suitable examples for each.	8	L2	CO2
	c.	Explain Type conversion and Type casting.	6	L2	CO2
		Module – 3			
Q.5	a.	With neat syntax, explain function declaration an Function definition.	6	L2	CO5
	b.	Explain the different types of storage classes.	8	L2	CO5
	c.	What is recursion? Write a C program to find the factorial of a number using recursive function.	6	L3	CO5
		OR			
Q.6	a.	What is an array? Explain how one dimensional arrays are declared and initialized. Write a C program to find the longest of 'N' elements.	12	L2	CO3
	b.	Write a C program to sort the given set of N number using Bubble sort technique.	8	L3	CO3
		Module – 4			
Q.7	a.	List the applications of arrays.	4	L1	CO3
	b.	Write a C program to implement matrix multiplication and validate the rules of multiplication.	10	L3	CO3
	c.	With syntax and example, explain scan set function.	6	L2	CO3

OR					
Q.8	a.	Explain the different methods of reading and writing strings using formatted and unformatted functions. Write an example for each.	12	L3	CO3
	b.	Write a C program to pass two dimensional array to the function and display in metrix format.	8	L3	CO3
Module – 5					
Q.9	a.	Explain the following string manipulation functions : i) strlen( ) ii) strcpy ( ) iii) strcmp( ) iv) strcaf( ).	8	L3	CO3
	b.	Define pointer. Explain the declaration and initialization of a pointer variable with an example.	4	L1	CO4
	c.	Write a C program to compute the sum mean and standard deviation of all elements stored in an array of N real numbers using pointers.	8	L3	CO4
OR					
Q.10	a.	Define structure. Explain the declaration of a structure with an example.	8	L2	CO4
	b.	Write a C program to implement structure to read, Write and compute average marks and the students scoring above and below the average marks for a class of N students.	12	L3	CO4

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