CBCS SCHEME

USN | | | | | | | | | | |

BESCK204E

Second Semester B.E/B.Tech. Degree Examination, Dec.2024/Jan.2025
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
1	a.	With a neat diagram, explain the basic organization of a computer.	6	L2	CO1
	b.	Explain the different characteristic features of stored program concept.	6	L2	CO1
	c.	Explain the basic structure of a C program.	8	L2	CO1
		OR			
2	a.	Explain the classification of computers.	8	L2	CO1
	b.	What is an identifier? What are the rules to be followed to form an identifier?	6	L2	CO2
	c.	Draw the flow chart to calculate the sum of first ten natural numbers.	6	L3	CO2
		Module – 2			
3	a.	Explain the different bitwise operators in C with an example for each.	8	L2	CO2
	b.	Write a program to find whether the given number is odd or even.	5	L3	CO2
	c.	Explain the switch statement with syntax and example.	7	L2	CO2
		OR			
4	a.	Differentiate between while and do-while loops.	6	L2	CO2
	b.	Write program to check whether the given number is palindrome or not.	8	L3	CO2
	c.	Write a program to generate and print the first 'n' Fibonacci numbers.	6	L3	CO2
		Module – 3			
5	a.	What is a function? Why are functions needed?	6	L2	CO5
	b.	Explain the different methods of passing parameters to functions giving an example for each.	8	L3	CO5
	c.	Write a program to find the factorial of a number using recursion.	6	L3	CO5

		OR			
6	a.	Discuss the different operations that can be performed on arrays.	10	L2	CO3
	b.	Write a program to sort the given 'n' elements in ascending order using bubble sort.	10	L3	CO3
		Module – 4			
7	a.	Explain the declaration and initialization of two-dimensional array with an example for each.	8	L2	CO3
	b.	Write a program to multiply two matrices.	12	L3	CO3
		OR			
8	a.	Explain the different functions used to read and write strings with an example for each.	12	L3	CO3
	b.	Write a program to find the length of a string without using library functions.	8	L3	CO3
		Module – 5			
9	a.	Explain the following string manipulation functions with an example : i) strcat( ) ii) strcmp( ) iii) strstr( ) iv) strcpy( ).	10	L3	CO3
	b.	Define pointer. Explain with example the pointer declaration and initialization.	5	L2	CO4
	c.	Write a program to swap two numbers using pointer.	5	L3	CO4
		OR			
10	a.	Write a program to read and display the details of 'n' students using structure. The details include roll no, name, branch and marks.	10	L3	CO4
	b.	Write a program using pointers to compute the sum mean and standard deviation of all elements stored in an array of 'n' real numbers.	10	L3	CO4

* * * * *