

CBCS SCHEME

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BESCK204E/BESCKE204

Second Semester B.E./B.Tech. Degree Examination, Dec.2023/Jan.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. VTU Formula Hand Book is permitted.
3. M : Marks , L: Bloom's level , C: Course outcomes.

Module – 1			M	L	C
Q.1	a.	Explain the structure of C program with example.	10	L2	CO1
	b.	Define variable and explain the rules for defining variable and classify the following as valid and invalid variables. Num1, lnum, \$sum, _Area, Area_Circle, +add, #12, 199_Spam_apple, a_2?	10	L2	CO1
OR					
Q.2	a.	Explain the steps for compiling and executing C program with neat flowchart.	10	L2	CO1
	b.	Explain the formatted input and output statements in 'C' with neat syntax and example.	10	L2	CO1
Module – 2					
Q.3	a.	List the different types of operators and explain each of them.	10	L2	CO2
	b.	Explain if, if...else and ladder if...else statement with syntax and example program.	6	L2	CO2
	c.	Demonstrate the use of switch statement with syntax and example.	4	L2	CO2
OR					
Q.4	a.	Demonstrate the use of breaks and continue statement with suitable example program. Write a 'C' program to check if a given number is prime order.	8	L3	CO2
	b.	Generate the following pyramid with a C code A A B A A B C B A A B C D C B A	5	L3	CO2
	c.	Differentiate between while and do...while loop. Write a 'C' program to find the number of digits in a given number.	7	L3	CO2
Module – 3					
Q.5	a.	Explain the various storage class specifiers used in C.	6	L2	CO5
	b.	Distinguish between call by value and call by reference using suitable example.	10	L2	CO5
	c.	Write the array declaration and initialization with examples.	4	L2	CO3

OR

Q.6	a.	Develop a C program to multiply the two matrices and validate the rules of multiplication.	10	L3	CO3
	b.	Write a C program to generate Fibonacci series using recursion.	6	L3	CO5
	c.	Write a C program to find factorial of a given number using recursion.	4	L3	CO5

Module – 4

Q.7	a.	Explain with a neat syntax string I/O functions.	6	L2	CO3
	b.	Explain the use of scanf function.	4	L2	CO3
	c.	Write the functions to implement string operations such as compare, concatenate, string length with parameter passing technique.	10	L2	CO3

OR

Q.8	a.	Explain the string handling functions with neat syntax. (Minimum 5).	10	L2	CO3
	b.	Demonstrate the two dimensional array declaration and initialization.	4	L2	CO3
	c.	Write a C program that reads a matrix and display the sum of all the elements of matrix.	6	L3	CO3

Module – 5

Q.9	a.	Define pointer. And explain how the pointers are declared and initialized.	7	L2	CO4
	b.	Define structure. And explain how the structures and structure variables are declared.	7	L2	CO4
	c.	List and explain the character handling functions with example.	6	L2	CO3

OR

Q.10	a.	Write a 'C' program to swap two integers using pointers.	6	L3	CO4
	b.	Differentiate between arrays and structures with suitable example.	6	L2	CO4
	c.	Implement a C program on structure to read, write and compute average marks and the students scoring above and below the average marks for a class of 'N' students.	8	L3	CO3
