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BESCK104E/BESCKE104

First 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. M : Marks , L: Bloom's level , C: Course outcomes.

		Module – 1	M	L	C
Q.1	a.	Explain the organization of a computers with a neat diagram.	08	L2	CO1
	b.	Explain the datatypes in C.	06	L2	CO2
	c.	Write a C program to demonstrate the use of printf and scanf statements to read and print values of variables of different datatypes.	06	L2	CO2
		OR			
Q.2	a.	Explain the different input devices.	06	L2	CO1
	b.	Explain the basic structure of C program with example.	07	L2	CO2
	c.	Explain the variable concepts and state the rules to be followed for naming the variables. Mention the valid and invalid cases.	07	L2	CO2
		Module – 2			
Q.3	a.	Illustrate the different operators in C. Explain relational operators with example.	06	L2	CO2
	b.	Explain switch case statement with syntax and example. Write a C program to determine whether an entered character is a vowel or not.	10	L2	CO2
	c.	Compare between the break and continue statements in C.	04	L2	CO2
		OR			
Q.4	a.	Explain the looping statements with suitable programming example.	10	L2	CO2
	b.	Develop a program to convert an integer into the corresponding floating numbers using type casting.	04	L3	CO2
	c.	Compare while and do-while statements in C.	06	L2	CO2
		Module – 3			
Q.5	a.	Explain the following elements of the function with syntax and example: i) function definition ii) function declaration iii) function call.	06	L2	CO4
	b.	Explain the declaration and initialization of one dimensional arrays in C.	06	L2	CO3
	c.	Explain the various storage class specifiers in C.	08	L2	CO3
		OR			
Q.6	a.	Discuss the various ways of passing parameters to the function.	07	L2	CO4
	b.	Define recursion. Develop a C program to print the Fibonacci series using recursion.	07	L3	CO4
	c.	Explain the scope of variables with example.	06	L2	CO3
		Module – 4			
Q.7	a.	Explain the declaration and initialization of two dimensional arrays in C.	07	L2	CO3
	b.	Develop a C program to sort the given numbers using bubble sort technique.	07	L3	CO3
	c.	Write a program in C to generate Pascal's triangle.	06	L2	CO3
		OR			
Q.8	a.	Write a C program to implement matrix multiplication and validate the rules of multiplication.	08	L2	CO3
	b.	What are strings? Mention the reading strings and writing strings along with syntax.	06	L2	CO2
	c.	Write a C program to print the transpose of 3×3 matrix.	06	L2	CO3

		Module – 5			
Q.9	a.	Define Pointers. Explain the declaration and initialization of a pointer with suitable programming example.	06	L2	CO3
	b.	Develop a C program to concatenate two strings without using built-in function.	06	L3	CO4
	c.	Develop a C program to implement a structure to read, write and compute average marks and the students scoring above and below the average marks for a class of N students.	08	L3	CO5
		OR			
Q.10	a.	Explain the following string functions: i) strcat ii) strlen iii) strcmp iv) strrev	08	L2	CO4
	b.	What is structure and state the structure declaration and initialization with programming example.	05	L2	CO3
	c.	Develop a program using pointers to compute the sum, mean and standard deviation of all elements stored in an array of N real numbers.	07	L3	CO5

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