Model Question Paper-I/II with effect from 2022-23 (CBCS Scheme)

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

First/Second Semester B.E. Degree Examination

Principles of Programming Using C

TIME: 03 Hours **Max. Marks: 100**

Note: Answer any **FIVE** full questions, choosing at least **ONE** question from each **MODULE**.

		Module -1	*Bloom's Taxonomy Level	Marks
Q.01	a	Define computer. Describe the various types of computers based on speed, memory and cost.	L1	8
	b	Develop an algorithm to find the area and perimeter of a circle. Also define an algorithm.	L2	6
	c	Write a short note on the characteristics of a computer	L1	6
		OR		
Q.02	a	What is variable? What are the rules to construct variable? Classify the following as valid/invalid Identifiers. i) num2 ii) $num1 iii) +add iv) a_2 v) 199_space vi) _apple vii)#12	L1	8
	b	Draw a flowchart and C program which takes as input p,t,r. Compute the simple interest and display the result.	L2	6
	c	Write a note on the following operators. i) Relational ii) Logical iii) Conditional		6
		Module-2		
Q. 03	a	Develop a C program that takes three coefficients (a, b, and c) of a quadratic equation ; ($ax^2 + bx + c$) as input and compute all possible roots and print them with appropriate messages.	L3	8
	b	Explain the working of goto statement in C with example.	L2	6
	c	Explain switch statement with syntax and example	L2	7
		OR		
Q.04	a	Develop a simple calculator program in C language to do simple operations like addition, subtraction, multiplication and division. Use switch statement in your program	L3	8
	b	Explain with examples formatted input output statements in C	L1	6
	c	Explain with syntax, if and if-else statements in C program.	L2	7
		Module-3		
Q. 05	a	Write a C program to swapping of 2 numbers using call by reference and call by value.	L3	8
	b			
	c	Discuss the implementation of user defined function with suitable example.	L2	6
		OR		
Q. 06	a	Write a C program to find the product of two given matrix.	L3	8
	b	Explain the working of recursion with suitable example.	L2	6
	c	Explain the declaration and initialization of one dimensional and two dimensional	L2	6

		arrays with an example.		
		Module-4		
Q. 07	a	Develop a C program to concatenate 2 strings without using built-in function.	L3	6
	b	Define String. Explain any 4 string manipulation function with suitable example.	L2	10
	c	Explain the difference between gets() and scanf() functions.	L2	4
		OR		
Q. 08	a	Develop a C program to find the largest of three numbers using pointer.	L3	6
	b	Define Pointer. Explain pointer variable declaration and initialization with suitable example.	L2	10
	c	Explain the difference between a null pointer and a void pointer.	L2	4
		Module-5		
Q. 09	a	Discuss the general syntax of structure variable declaration of structure to store book information.	L3	8
	b	Differentiate between structure and union.	L2	6
	c	Write a program to write employees details in a file called employee.txt. Then read the record of the nth employee and calculate his salary.	L3	6
		OR		
Q. 10	a	Discuss the different modes of operation on files with suitable example.	L3	8
	b	Differentiate between gets() and fgets().	L2	6
	c	Implement structures to read, write and compute average- marks of the students, list the students scoring above and below the average marks for a class of N students.	L3	6