CBCS SCHEME

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BPOPS103/203

First/Second Semester B.E./B.Tech. Degree Examination, June/July 2023
Principles of Programming Using C

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. Describe the characteristics of computer in detail.	10	L2	CO1
	b.	Explain various Input devices.	10	L2	CO1
		OR			
Q.2	a.	Explain the following programming paradigms. i) Procedural Programming ii) Structured Programming iii) Object Oriented Programming.	10	L2	CO2
	b.	Explain printf( ) and scanf( ) functions with their syntax. Give the illustrative examples.	10	L2	CO2
		Module – 2			
Q.3	a.	Explain any five types of operators in C language with the illustrative examples.	10	L2	CO2
	b.	Write a C program to find the roots of quadratic equation by accepting the coefficients. Print appropriate messages.	10	L3	CO2
		OR			
Q.4	a.	What are iterative statements? Explain three types of iterative statements with their syntax.	10	L2	CO2
	b.	Write a program to print the following pattern. 1 1 2 1 2 3 1 2 3 4	10	L3	CO2
		Module – 3			
Q.5	a.	Explain the syntax of function declaration and function definition with example.	06	L2	CO2, CO5
	b.	Write a C program to swap two numbers using call by reference method.	06	L3	CO2, CO5
	c.	Describe different types of storage classes with examples.	08	L2	CO2
		OR			
Q.6	a.	What is an array? Explain how arrays are declared and initialized with example.	08	L2	CO3
	b.	Write a C program to transpose a 3×3 matrix.	08	L3	CO3
	c.	List applications of arrays.	04	L3	CO3

Module – 4					
Q.7	**a.**	Write a C program to convert characters of a string into upper case without using built-in function.	**10**	**L3**	**CO3**
	b.	Discuss the working of the following string manipulation functions with suitable examples. i) strcmp ii) strlen iii) strcpy iv) strcat v) strcmp	**10**	**L2**	**CO3**
OR					
Q.8	**a.**	Define Pointer. Explain the declaration of a pointer variable with an example.	**05**	**L2**	**CO2, CO4**
	b.	Mention the applications of pointers.	**05**	**L2**	**CO4**
	c.	Develop a C program to compute the sum, mean and standard deviation of all elements of an array using pointers.	**10**	**L3**	**CO3, CO4**
Module – 5					
Q.9	**a.**	What is structure? Explain the declaration of a structure with an example.	**06**	**L2**	**CO4**
	b.	Differentiate between Structures and Unions.	**06**	**L3**	**CO4**
	c.	Develop a C program to read and display the information of all the students in the class.	**08**	**L3**	**CO4**
OR					
Q.10	**a.**	Define Enumerated datatype. Explain the declaration and access of enumerated datatypes with a code in C.	**06**	**L2**	**CO2**
	b.	Explain the process of opening a file in C.	**06**	**L2**	**CO2**
	c.	Write a C program to demonstrate fwrite( ) function.	**08**	**L3**	**CO2**

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