CBCS SCHEME

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BPLCK205D

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
Q.1	a.	Explain the basic C++ program syntax with example.	10	L2	CO1
	b.	Explain the concept of Inheritance and its advantages of deploying.	10	L1	CO1
		OR			
Q.2	a.	Explain Object – based and objected oriented design and difference between them.	10	L2	CO1
	b.	Explain the message passing , data abstraction and polymorphism.	10	L2	CO2
		Module – 2			
Q.3	a.	Explain expressions and their types (any three) with suitable example.	10	L2	CO2
	b.	Explain the scope resolution operator and reference variable with suitable example.	10	L2	CO2
		OR			
Q.4	a.	Write a C++ Program to demonstrate function overloading for the following prototype. add (int a , int b) ; add (double a, double b) ;	10	L3	CO2
	b.	Write a program to narrate the use of Inline function. Explain with all examples.	10	L3	CO2
		Module – 3			
Q.5	a.	With an example program for each discuss : i) Constructor with default arguments ii) Copy constructor.	10	L2	CO3
	b.	Describe the importance of destructor. Explain its used with a program.	10	L2	CO3
		OR			
Q.6	a.	Explain the different types of Inheritance with example.	10	L2	CO3
	b.	Suppose we have three classes , Vehicle , Four wheeler and Car. The class vehicle is the base class and print. "I am a Vehicle". The class four wheeler is derived from it and it print "I have four wheels". The class Car is derive from class four wheeler and it print "I am a Car" by using the function Car ( ) , Four wheeler ( ) and Vehicle ( ). Write a C++ program to demonstrate multilevel inheritance using this.	10	L3	CO3

		Module – 4			
Q.7	**a.**	Write a note on I/O stream class hierarchy.	**10**	**L2**	**CO4**
	b.	Write a C++ program to write and read time in / from binary file using fstream.	**10**	**L3**	**CO4**
		OR			
Q.8	**a.**	What are the various types of file? What are the various modes in which a file can be opened? Explain with an example program.	**10**	**L2**	**CO4**
	b.	Write a C++ program to create a text file. Check file created or not, if created it will write some text into the file and then read the text from the file.	**10**	**L3**	**CO4**
		Module – 5			
Q.9	**a.**	Explain concept of exception – handling mechanism in C++.	**10**	**L2**	**CO4**
	b.	Write a C++ program function that handle all array of bounds exceptions using C++.	**10**	**L3**	**CO4**
		OR			
Q.10	**a.**	Write a function which throws a division by zero exception and catch it in catch block. Write a C++ program to demonstrate $Z = \frac{a}{a-b}$ to handle exception.	**10**	**L3**	**CO4**
	b.	Explain the Rethrowing an exception with all example.	**10**	**L2**	**CO4**

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