CBCS SCHEME

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BPLCK105D/BPLCKD105

First Semester B.E./B.Tech. Degree Examination, June/July 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.	What is object-oriented programming? Explain. Distinguish between object based and object-oriented programming.	08	L2	CO1
	b.	What are abstract classes? Where are they useful? Discuss with an example.	08	L2	CO1
	c.	What is class and object? Explain with example.	04	L2	CO1
		OR			
Q.2	a.	Explain message passing with the help of example.	08	L2	CO1
	b.	What is polymorphism? Explain three types of polymorphism with examples.	08	L2	CO1
	c.	What are Abstract Data Type? Explain with example.	04	L2	CO1
		Module – 2			
Q.3	a.	List out and explain the different types of operators introduced in C++ with examples.	10	L2	CO2
	b.	What is function overloading? Write a C++ program to find area of the circle, triangle and rectangle using function overloading.	10	L3	CO2
		OR			
Q.4	a.	Discuss expressions and their types with suitable examples.	10	L2	CO2
	b.	What is the difference between normal function and inline function? Write a C++ program to illustrate the use of inline function.	10	L3	CO2
		Module – 3			
Q.5	a.	What is constructor? Explain parameterized constructor and copy constructor with examples.	10	L3	CO3
	b.	What is inheritance? Explain multiple inheritance and multi-level inheritance with examples.	10	L3	CO3
		OR			
Q.6	a.	What is dynamic initialization of objects? Write a C++ program to demonstrate the dynamic initialization of constructor.	10	L3	CO3
	b.	What is hybrid inheritance? Write a C++ program to demonstrate hybrid inheritance.	10	L3	CO3
		Module – 4			
Q.7	a.	What are text files and binary files? How to perform read and write operations in text files and binary files? Explain with examples.	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
		OR			
Q.8	a.	Explain the following functions with example: i) get( ) ii) put( ) iii) getline( )	10	L2	CO4
	b.	Write a C++ program to demonstrate writing to binary file and reading from a binary file.	10	L3	CO4

		Module – 5			
Q.9	a.	Discuss execution handling mechanism in C++.	10	L2	CO5
	b.	What is rethrowing an exception? Write a C++ program to demonstrate how an exception is rethrown and caught.	10	L3	CO5
		OR			
Q.10	a.	Discuss catching class types as exceptions and multiple catch statements with examples.	10	L2	CO5
	b.	Write a function which throws a division by zero exception and catch it in catch block. Write a C++ program to demonstrate usage of try, catch and throw to handle exception.	10	L3	CO5

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