



CBCS SCHEME

BPLCK105D/BPLCKD105

**First Semester B.E./B.Tech. Degree Supplementary 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.	Define the terms class, object, encapsulation and polymorphism with suitable examples.	10	L2	CO1
	b.	Design a class triangle containing data items base, height and three member functions getdata(), findarea() and displaydata() get the user input to find area of triangle and to display the area respectively.	10	L3	CO1
OR					
Q.2	a.	Illustrate the structure of C++ program with syntax and example.	10	L2	CO1
	b.	Explain message passing with an example.	10	L2	CO1
Module – 2					
Q.3	a.	Distinguish any 5 types of expressions in C++ with an example.	10	L2	CO1
	b.	Write a C++ program to find the maximum of two numbers using inline function.	10	L3	CO1
OR					
Q.4	a.	Explain keywords, identifiers and constant with an example.	10	L2	CO1
	b.	Define operators and its types with suitable examples.	10	L2	CO1
Module – 3					
Q.5	a.	What is a constructor? List different types of constructor and explain the default constructor with example.	10	L2	CO1
	b.	Develop a C# program to demonstrate function overloading for the following prototype add(inta, intb); add (double a, double b);	10	L2	CO2
OR					
Q.6	a.	Describe inheritance. Explain the types of inheritance with example.	10	L2	CO3
1 of 2					

	b.	Suppose we have three classes vehicle, four wheeler and car. The class vehicle is the base class, the class four wheeler is derived from it and the class car is derived from the class four wheeler, class vehicle has a method 'vehicle' that prints 'I Am a vehicle', class four wheeler has a method 'four wheeler' that prints 'I have four wheels' and class car has a method 'car' that prints 'I Am a car'. So as this is a multi level inheritance. We can have access to all the other classes methods from the object of the class car. We invoke all the methods from a car object and print the corresponding outputs of the methods. So if we invoke the methods in this order, car(), four wheeler() and vehicle() then output will be I am a car I have four wheels I am a vehicle Write a C++ program to demonstrate multilevel inheritance using this.	10	L3	CO3
Module – 4					
Q.7	a.	With a neat diagram, explain stream class hierarchy in C++.	10	L2	CO4
	b.	Write a C++ program to create text file, check file created or not, if created it will write some text into the file and read the text from the file.	10	L3	CO3
OR					
Q.8	a.	Describe the following functions with its syntax in text files: i) Open ii) Close iii) Read iv) Write.	10	L3	CO4
	b.	Write a C++ program to write and read time in/from binary file using fstream.	10	L3	CO4
Module – 5					
Q.9	a.	Describe the role of the throw statement in C++ exception handling.	10	L2	CO4
	b.	Write C++ program function which handles array of bounds exception using C++.	10	L3	CO4
OR					
Q.10	a.	List and briefly explain two predefined exceptions in C++. How are these exceptions commonly used in practice?	10	L2	CO4
	b.	Define the concept of exception handling in C++. Explain how it differs from traditional error-handling methods.	10	L2	CO4
