

Paper Code : 21314

F-414

B.C.A. (Third Semester)

Examination, 2023-24

(New Course)

Paper - BCA-304-N

**OBJECT ORIENTED DESIGN AND
PROGRAMMING IN C++**

Time : Three Hours]

[Maximum Marks : 70

Note : Attempt any five questions. All questions carry equal marks.

1. (a) What is an operator? How many types of operators are used in C++. 7
- (b) Write a program in C++ to find the greatest number among three number. 7

2. (a) What is the difference between procedure oriented and object oriented programming. 7
- (b) Explain data abstraction, data encapsulation and data hiding. 7
3. (a) Explain switch case statement with the help of program. 7
- (b) What is the difference between structure and class explain it. 7
4. (a) Explain function overloading in detail. 7
- (b) What is the need of friend function? Explain with the help of program. 7
5. (a) Write a program of constructor overloading. 7
- (b) Write a program of class which contains member function and define inside and outside definition. 7

6. (a) What is the difference between call by value and call by reference with the help of program. 7
- (b) What is scope resolution operators reference variable? Also write their uses and their syntax. 7
7. (a) What is inheritance? How many types of inheritance are there? Also explain different type of derivation. 7
- (b) Write a program of multiple inheritance. 7
8. (a) What is polymorphism? How many types of polymorphism exist? Also write their differences. 7
- (b) What is virtual function? Write their characteristics and syntax. 7