

Third Semester B.C.A. Degree Examination
October / November 2019
(2016-17 Batch Scheme)

(BCC 410) OBJECT ORIENTED PROGRAMMING WITH C++

Time : 3 Hours

Max. Marks : 80

I. Answer the following: (5x1=5)

1. _____ is wrapping up of data and function into a single unit.
2. What are Class members ?
3. What is a Constructor?
4. What is an Operator Overloading?
5. What is the necessary condition for default argument?

II. Answer any FIVE of the following: (5x15=75)

6. a) With a program example, explain the general structure of a C++ program. (05)
b) Explain the basic concept of OOP. (02)
c) Differentiate C and C++. (05)
7. a) Write a note on: (1) Static Data Members (02)
(2) Static member function (03)
b) (1) How do you define an outside function as an inline ? Explain (03)
(2) What are the advantages of an inline function. (02)
c) What is a friend function ? Explain its characteristics. (05)
8. a) With an example explain function overloading. (05)
b) Explain call by reference and return by reference. (05)
c) What is the use of private member function? Explain with an example. (05)
9. a) Explain different types of constructors and give an example to each. (05)
b) Differentiate constructors with member function. (05)
c) Explain the procedure for constructing two dimensional array. (05)

10. a) What are the rules followed for overloading an Operator? **05**
b) Write a program to demonstrate Binary Operator Overloading. **05**
c) Explain with an example Overloading Operators Using friend function. **05**
11. a) What is Inheritance? Explain different types of Inheritance. **05**
b) What are the various types of access specifiers of a Base Class? **05**
c) Why do we need virtual base classes? Explain with an example. **05**
12. a) How to inherit private members of a class? Explain with an example.
b) What are Class Templates? Explain with example.
c) Write a C++ program to sort an array using template. **(5+5+5)**

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