

Total number of printed pages – 3

BCA
2201

2019

BCA

4th Semester Examination

Object Oriented Programming Using C++

Paper – 2201

Full Marks – 70

Time : 3 Hours

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

*Answer Question No. 1 and any **four** from the rest.*

1. Answer any **five** questions : 2×5
- (a) What is abstract data type ?
 - (b) Define Encapsulation.
 - (c) What is the need of arrow operator ?
 - (d) What is pure virtual function ?
 - (e) What do you mean by early binding & late binding ?
 - (f) Differentiate between class & structure.
 - (g) What is 'new' operator ?

P.T.O.

2. (a) Differentiate between function overloading and function templates ? Can we overload a function template ? Illustrate with example. 5+4
- (b) Write a C++ program to illustrate multiple inheritance ? 6
3. (a) What is Inheritance ? Explain the visibility of base class members for the access specifier private, protected and public while creating the derived class. 1+6
- (b) Explain the use of ifstream & ofstream classes for file input and output. 4+4
4. (a) Define exception handling. Explain the use of try, catch and throw for exception handling in C++. 2+6
- (b) Write a C++ program to illustrate catching all exceptions. 7
5. (a) What do you mean by constructor ? What are the characteristics of a constructor ? 2+3
- (b) What is parameterized constructor ? Is it mandatory to use constructor in a class ? 2+2
- (c) Explain copy constructor with example. 6

6. (a) What are the benefits of OOP ? Distinguish between class and object . 3+3
- (b) What are the different kinds of storage class specifiers supported by C++ ? Define them. 5
- (c) How is a member function of a class defined ? 4
7. Write short notes (any **three**) : 5×3
- (a) Polymorphism
- (b) Scope resolution operator
- (c) Standard template library
- (d) Virtual base class

[Internal Assessment – 30 marks]
