

(Please write your Exam Roll No.)

Exam Roll No.

END TERM EXAMINATION

THIRD SEMESTER [BCA] NOVEMBER-DECEMBER 2018

Paper Code: BCA-209 Subject: Object Oriented Programming Using C++

Time: 3 Hours

Maximum Marks: 75

Note: Attempt any five questions including Q.No1 which is compulsory.
Select one question from each unit.

Q1 Answer the following:-

- Explain data hiding and encapsulation with an example.
- Compare the features of C and C++.
- Explain the features of macros and inline functions.
- Give the syntax of defining a class.
- Explain various types of inheritance.
- Compare the features of early binding and late binding.
- Explain virtual base class with an illustration.
- Explain the features of generic programming.
- Explain namespace. Give an example.
- Explain various types of exceptions.

(10x2.5=25)

UNIT-I

- Q2 (a) Compare the feature of structured programming language and object oriented programming language. (4)
- (b) Explain the features of inheritance and exception handling used in object oriented programming languages. (4.5)
- (c) Explain the features of C++ environment: (4)
- C++ Compilers
 - Testing a C++ program

OR

- Q3 (a) Write a C++ program to illustrate the use of new () and delete () operators. (4.5)
- (b) Explain various types of polymorphism. (4)
- (c) Mention any four standard libraries used in C++. (4)

UNIT-II

- Q4 (a) Write a C++ program to illustrate the default constructor, parametric constructor and copy constructor. (4.5)
- (b) Explain the role of friend functions in C++. (3.5)
- (c) Explain the following:- (4.5)
- Abstract class and meta class
 - Data members and member functions
 - This pointer

OR

- Q5 (a) Explain function overloading with an example. (4)
- (b) Explain the role of constructors and destructors in C++. (3.5)
- (c) Write a C++ program to illustrate the following:- (5)
- Call by value
 - Call by reference

UNIT-III

- Q6 (a) Write a C++ program to illustrate the following: (i) overloading of member functions and (ii) overriding of member functions. (6)
- (b) Write a C++ program to illustrate virtual functions. (4.5)
- (c) Give an example to illustrate aggregation and composition. (4)

OR

P.T.O.

[-2 -]

- Q7 (a) Explain the access mechanism of public, private and protected related to inheritance. (4.5)
(b) Explain how to resolve ambiguity in multiple inheritances with an example. (3)
(c) Write a C++ program to illustrate the following:- (5)
i. Overload binary operator
ii. Overload unary operator

UNIT-IV

- Q8 (a) Write a C++ program to illustrate the following stream functions: is_open (), get() and put(). (5)
(b) Write a C++ program to illustrate overloading of template functions. (4)
(c) Explain the features of persistent objects. Give an example. (3.5)

OR

- Q9 (a) Give the syntax of write () and read () functions using in file streams. (4)
(b) Explain the template functions with an example. (4)
(c) Write a C++ program to illustrate try, throw and catch statements. (4.5)
