

- (b) What is virtual function? Why do we need virtual functions? Explain with example.

**Unit-IV**

8. (a) What do you mean by Template? Write a program to demonstrate class template.
- (b) What do you mean by string? Explain various functions with example.
9. (a) What is an exception handler? What are the steps involved in exception handling? Explain.
- (b) What is namespace? Explain with example.

97675-3850-(P-4)(Q-9)(16) (4)

g/w

Roll No. ....

**97675**

**B.C.A. 4th Semester**

**Examination-May, 2016**

**Object Oriented Design & Programming**

**Paper-BCA-208**

**Time : 3 hours**

**Max. Marks : 80**

Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard will be entertained after the examination.

**Note :** Attempt five questions. Q No. 1 is **compulsory**. Select **one** question from each unit. All questions carry equal marks.

1. (a) What is Pointer ?
- (b) What is recursion ?
- (c) What do you mean by destructor ?

97675-3850-(P-4)(Q-9)(16) (1)

[ Turn Over

- (d) What are references ?
- (e) What is static function ?
- (f) What is abstract class ?
- (g) What do you mean by template function ?
- (h) What are iterators ?

#### Unit-I

2. (a) What are various data type used in C++ language ? Illustrate their declaration.
- (b) What are operators? Enumerate various operators supported by C.
3. (a) What is Object-oriented programming? How is it different from Procedure-oriented programming ?
- (b) What do you understand by reusability? Discuss the features available in C++ to support reusability.

97675-3850-(P-4)(Q-9)(16)

( 2 )

#### Unit-II

4. What is constructor? Is it mandatory to use construction in a class? Can we have more than one constructor in a class ? If yes, explain the need for such a situation.
5. (a) What do you mean by static member function? Explain with example.
- (b) What are memory management operators? Explain with example.

#### Unit-III

6. What does inheritance mean in C++? What are different forms of inheritance? Give an example for each. How containership differ from inheritance? Explain.
7. (a) What is operator overloading? Differentiate between overloading of binary operator using friend function and without friend function.

97675-3850-(P-4)(Q-9)(16)

( 3 )

[ Turn Over