

**2014**

Time : 3 hours

Full Marks : 80

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

The figures in the margin indicate full marks.

Answer from both the Groups as directed.

**Group – A**

**(Objective Type Questions)**

Answer all questions :

1. Select the correct answer from the following : 2×10 = 20

(a) If a subclasses contains a method with the same name and arguments as in the base class, it is :

- (i) Overloading
- (ii) Polymorphism
- (iii) Overriding
- (iv) Encapsulation

(b) Size of void pointer is :

- (i) 0 byte
- (ii) 2 byte
- (iii) 4 byte
- (iv) 8 byte

(c) If the type specifier of parameters of a function is followed by an ampersand (&), that function call is :

- (i) Pass by value
- (ii) Pass by reference

(d) Overloaded functions are :

- (i) Very long functions that can hardly run
- (ii) One function containing another one or more functions inside it.
- (iii) Two or more functions with the same name but different number of parameters or type.
- (iv) None of the above

(e) Every function is followed by :

- (i) Curly braces
- (ii) Parameters

NR - 22/4

( 2 )

Contd.

(iii) Small braces

(iv) None of the above

(f) In C++, arguments can be passed in function by :

- (i) Values
- (ii) References
- (iii) Address
- (iv) All of the above

(g) Every statement in C++ program should end with :

- (i) A full stop (.)
- (ii) A coma (,)
- (iii) A semicolon (;)
- (iv) A colon (:)

(h) A process of a class can contain object of the another class is called :

- (i) Nesting
- (ii) Friend
- (iii) Data abstraction
- (iv) Encapsulation

NR - 22/4

( 3 )

( Turn over )

- (i) Operator overloading is called :
- (i) Run time polymorphism
  - (ii) Compile time polymorphism
  - (iii) Complex overloading
  - (iv) Abstract overloading
- (i) An exception is caused by :
- (i) A hardware problem
  - (ii) A problem in the operating system
  - (iii) A runtime error
  - (iv) A syntax error
  - (v) (i), (ii) and (iii) are true
  - (vi) All are true

**Group – B**

**(Long-answer Type Questions)**

Answer any four questions of the following :  
15x4 = 60

2. What is object oriented programming ? Explain the basic oops concept with examples.

NR – 22/4 (4)

Contd.

3. Explain the need for constructors in class. What are the various types of constructors available in C++ ? Explain briefly.
4. Write a class that adds two complex numbers ? Write appropriate main method to use above class ?
5. What is friend function and friend class ? Explain with example.
6. Differentiate between late binding and dynamic binding. What is abstract class and interface.
7. Write short notes on the following :
- (a) Scope resolution operator
  - (b) Exception handling
  - (c) Pass by reference and address
  - (d) Inheritance in C++
8. What are the access modifier available in C++ class ? Explain them with example.



NR – 22/4 (800)

(5)

BCA(II)/09/14