

Seat No. : _____

NH2-113

December-2015

B.C.A., Sem.-III

CC-203 : Object Oriented Concepts & Programming

Time : 3 Hours

Max. Marks : 70

- Instructions :** (1) Draw diagrams wherever necessary.
(2) Start new question from new page.

1. (a) Answer the following :

- (1) Explain default arguments with example. **4**
(2) Write short note on C++ output. **3**

OR

- (1) What is the difference between OOP and POP ? **4**
(2) Write a short note on function overloading. **3**

(b) Answer the following :

- (1) Explain: this pointer in C++. **4**
(2) What is the use of arrow (->) operator ? **3**

OR

- (1) Can we declare a function outside a class ? If yes, then explain with example. **4**
(2) Write a short note on reference variables in C++. **3**

2. (a) Answer the following :

- (1) Explain nested class with example. **4**
(2) Write a short note on friend class. **3**

OR

- (1) Explain mutable data members with example. **4**
(2) Write a short note on array of class objects. **3**

(b) Answer the following :

- (1) Explain static data members with example. **4**
(2) What is the use of new keyword in C++ ? **3**

OR

- (1) Write a short note on destructors in C++. **4**
(2) Explain: set_new_handler() function. **3**

3. (a) Answer the following :
- (1) Explain function overriding with example. **4**
 - (2) Define inheritance. Explain the types of inheritance. **3**

OR

- (1) Can we initialize base class member through derived class object ? If yes, How ? **4**
- (2) Explain the use of protected access specifier. **3**

(b) Answer the following :

- (1) What is virtual function ? What are the rules of virtual function ? **4**
- (2) Write a short note on virtual destructor. **3**

OR

- (1) Explain pure virtual function with example. **4**
- (2) Difference between early binding and late binding. **3**

4. (a) Answer the following :

- (1) What is operator overloading ? What are the rules of operator overloading ? **4**
- (2) Explain function template with example. **3**

OR

- (1) If constructor and destructor are present in both base class and derived class of multiple inheritance, what is the order of invocation ? Explain with example. **4**
- (2) Write a short note on nested class templates. **3**

(b) Can we overload increment and decrement operators ? Explain with example. **7**

OR

(b) Explain basic to class and class to basic conversion with example. **7**

- (1) cin is the object of the _____ class.
 - (2) An _____ operator is used to resolve the global scope of a particular object.
 - (3) The data members whose value cannot be changed throughout the execution of the program is known as _____.
 - (4) Virtual functions is used to achieve _____ polymorphism.
 - (5) _____ are used for generic programming in C++.
 - (6) Static member functions can only access _____ data members.
 - (7) The ____ operator destroys the created object to release the memory space for future use.
 - (8) In C++, it is not mandatory that private section is declared first in the class and then the public section. (True / False).
 - (9) A process in which, a base class is inherited by a child class, which in turn is inherited by its child class and so on is called multiple inheritance. (True / False)
 - (10) A destructor can be created in either private or public section of the class. (True / False)
 - (11) In C++, class to class conversion is possible. (True / False)
 - (12) Unnamed namespaces are also called anonymous namespaces. (True / False)
 - (13) With the help of operator overloading, a new operator can be created. (True / False)
 - (14) A class that contains at least one pure virtual function is known as virtual class. (True / False)
-

