# TO-112

## B.C.A. Sem.-III
## May-2013

### CC-203 : Object Oriented Concepts and Programming

**Time : 3 Hours]**             **[Max. Marks : 70**

1. (A) (1) Differentiate procedure oriented and object oriented programming. **3**

   (2) Explain inline function with its limitations. **4**

   **OR**

   (1) Differentiate C and C++. **3**

   (2) Explain : 'Reference variable as function return type and argument'. **4**

   (B) Explain function overloading with example. Write difference between function overloading and overriding. **7**

   **OR**

   Explain Class and Object with memory structure and access specifier.

2. (A) Explain friend function with its features and example. **7**

   **OR**

   Explain constructor with its characteristic and types.

   (B) Explain dynamic memory allocation and deallocation operators with its syntax and differentiate dynamic memory management and static memory management. **7**

   **OR**

   Explain : 1. Namespace 2. set_new_handler function.

3. (A) Explain : "Types of Inheritance". **7**

   **OR**

   Write advantages of inheritance and explain inheritance using different access specifiers.

   (B) (1) Write rules for virtual function. **7**

   (2) Explain abstract class.

   **OR**

   Differentiate :

   (1) Early binding and Late binding.

(2) Virtual function and Pure virtual function.

4. (A) Write rules for operator overloading. **7**

### OR

What is operator overloading ? Explain unary operator overloading with example.

(B) Write note on Type Conversion. **7**

### OR

Explain class template with multiple parameters.

5. Attempt following : **14**

(1) What is difference between structure in C and C++ ?

(2) What is use of Arrow operator ?

(3) Write importance of function prototyping.

(4) Write definition of class.

(5) What is enclosing class ?

(6) What is bad_alloc ?

(7) What is use of destructor ?

(8) Write benefits of encapsulation.

(9) What is use of virtual function ?

(10) What is benefit of function template ?

(11) Which operators cannot be overloaded ?

(12) Inheritance implements _____ relationship.

(13) How many parameters are required to overload binary operator using friend function ?

(14) Which constructor invoked first from the base and derived class constructors ?

_____