

**Object Oriented Programming Using C++
(IT-252-E, May 06)**

Note: Attempt any five questions in all, taking at least one from each part.

UNIT-1

1. a) Differentiate between Procedure oriented and Object Oriented Programming.
b) Explain the following:
 - i) Pre-processor Directives
 - ii) Namespaces
2. a) What are static data members? What is difference between static data members of a class? Explain with example.
b) What is function overloading? What is the process of function overloading? Explain with example.

UNIT-2

3. a) What is operator overloading? What are the methods of overloading the operators in C++? Explain one method of operator overloading in C++ with example.
b) Write a program to overload '*' operator.
4. a) Write a program which implements the concept of Virtual base class.
b) What is the ambiguity problem in case of multiple inheritance? How it can be removed?

UNIT-3

5. a) What are virtual functions? What are the requirements of virtual functions? Explain with examples.
b) What is the friend function? Explain its advantages with examples.
6. a) Explain the following:
 - i) put ()
 - ii) get ()
 - iii) getline ()
 - iv) write ()
b) Write a program which reads a line of text and stores into file and then print the file contents.

UNIT-4

7. a) What are class Templates and function Templates? Give example of each.
b) Write a program which designs a template that performs multiplication of:
 - i) int type data
 - ii) float type data
8. Explain the following:
 - i) Exception handling
 - ii) Inheritance
 - iii) Data Abstraction and Encapsulation
 - iv) Inline function.