

Roll No.

Total No. of Pages : 2

BT4/M06 8727

Object Oriented Programming Using C++

Paper-IT-252 E

Time : Three Hours]

[Maximum Marks : 100

Note : – Attempt any **FIVE** questions, selecting at least **ONE** from each unit.

UNIT-I

1. (a) Differentiate between Procedure oriented and Object Oriented Programming. 8
- (b) Explain the following :
 - (i) Pre-processor Directives 7
 - (ii) Namespaces. 5
2. (a) What are static data members ? What is difference between static data members and simple data members of a Class ? Explain with example. 10
- (b) What is function overloading ? What is the process of function overloading ? Explain with example. 10

UNIT-II

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. 12
- (b) Write a program to overload '*' operator. 8
4. (a) Write a program which implements the concept of Virtual base class. 12
- (b) What is the ambiguity problem in case of multiple inheritance ? How it can be removed ? 8

8727

Contd.

UNIT-III

5. (a) What are virtual functions ? What are the requirements of virtual functions ? Explain with example. 12
- (b) What is the friend function ? Explain its advantages with examples. 8
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 prints the file contents. 12

UNIT-IV

7. (a) What are Class Templates and function Templates ? Give example of each. 12
- (b) Write a program which designs a template that performs multiplication of:
- (i) int type data
 - (ii) float type data
8. Explain the following :
- (a) Exception handling
 - (b) Inheritance
 - (c) Data Abstraction and Encapsulation
 - (d) Inline function.