

Roll No.

Total Pages : 04

BT-3/D-20

43134

OBJECT ORIENTED PROGRAMMING
PC-CS-203

Time : Three Hours]

[Maximum Marks : 75

Note : All questions in Part A and Part B are compulsory.
Attempt any *four* questions from Part C, selecting *one*
question from each Unit.

Part A

1. (a) What are inline functions ?
(b) What is throwing an exception ?
(c) What is the use of new operator ?
(d) What does polymorphism mean in C++ language ?
(e) Under what circumstances overloading using friend
function becomes necessary ? **5×3=15**

Part B

2. Explain controlling access function and utility function
with example. **5**
 3. Why is the "assignment" operator function not inherited ?
Explain. **5**
- (5)L-43134 **1**

4. What are destructors ? When are they called and what is
their utility ? **5**
5. Create a template for bubble sort function. **5**

Part C

Unit I

6. (a) What is a class ? What is the relation between an
object and a class ? Write a program which shows
how to define a class, how to access member
functions and how to create and access objects in
C++ ? **6**
(b) Which operator is used to access a class member
with respect to pointer ? **4**
7. (a) What do you mean by type conversion ? Give an
example of basic to object conversion. **5**
(b) What is the difference between early binding and
late binding in C++ ? **5**

Unit II

8. (a) Why should the formal arguments of a copy
constructor be a reference object ? **5**
- (5)L-43134 **2**

- (b) What is Inheritance ? How does inheritance
influence the size and functionality of derived class
objects ? **5**
9. Under what conditions does the dynamic memory
allocation become mandatory ? Explain with example. **10**

Unit III

10. Overload the "addition" operator for the string so that it
adds two strings and return the result. **10**
11. Explain the concept of Virtual and Pure Virtual Functions
with the help of examples. When do we make a virtual
function "pure" ? What are the implications of making a
function a pure virtual function ? Explain. **10**

Unit IV

11. (a) Write a program to update the contents of file using
random access. **5**
(b) What is a Template ? Explain with the help of an
example, how to create a function template and a
class template. **5**

(5)L-43134 **3**

13. What is exception handling ? Which three keywords are
provided in C++ for implementing exception handling ?
What are the limitations of exception handling in C++ ? **10**