

Roll No.

Total Pages : 03

BT-4/M-20

34092

OBJECT ORIENTED PROGRAMMING

CSE-202N

Time : Three Hours]

[Maximum Marks : 75

Note : Attempt *Five* questions in all, selecting at least *one* question from each Unit.

Unit I

1. (a) Describe the following characteristics of object oriented programming :
 - (i) Polymorphism
 - (ii) Data abstraction
 - (iii) Data encapsulation. **9**
- (b) What is a Class ? How is it created ? Explain using suitable example. **6**
2. (a) Differentiate between public, private and protected access specifiers. **6**
- (b) Define an enumerated data type in C++ with suitable example. **4**
- (c) State the difference between class and structure. Explain with an example. **5**

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Unit II

3. (a) Explain the difference between inline function and friend function with the help of an example. **8**
- (b) Differentiate between Default Constructor and constructor with Default argument. **7**
4. (a) Explain New operator with example. **3**
- (b) What does inheritance mean in C++ ? What are different forms of inheritance ? Give an example of each. **12**

Unit III

5. (a) Explain static and dynamic binding with suitable example. **5**
- (b) Write a C++ program demonstrating use of the virtual function with the use of base and derived classes. **10**
6. (a) What is operator overloading ? What are the methods of overloading the operators in C++ ? Explain binary operator overloading in C++ with example. **12**
- (b) What is significance of Virtual Destructor ? **3**

Unit IV

7. (a) What are the different types of file opening modes ?
Explain file attributes. **7**
- (b) What are class templates ? How are they created ?
What is the need for class templates ? Explain with
suitable example. **8**
8. (a) What is an exception ? List the principles of
exception handling. Explain exception handling
mechanism of C++ with suitable example. **12**
- (b) Explain stream manipulators. **3**