

Roll No. ....

Total Pages : 03

**BT-3/D-23**

**43330**

**OBJECT ORIENTED PROGRAMMING**  
**PC-CS-AIML-205A**

Time : Three Hours]

[Maximum Marks : 75

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

**Unit I**

1. (a) What is encapsulation ? How is it implemented in C++ ? 5
- (b) What do you mean by Namespace ? Explain with the help of example. 5
- (c) What is class ? How is it created ? Explain using suitable example. 5
2. (a) Differentiate between structure and class in C++ using suitable examples. 5
- (b) What is Polymorphism ? Explain compile time and run-time polymorphism. 5
- (c) Differentiate private and public members of class using suitable examples. 5

## Unit II

3. (a) What are the static data members ? Explain their use. 5
- (b) Explain dynamic memory allocation and deallocation in C++ by giving examples. 5
- (c) Explain Hybrid inheritance using suitable example. 5
4. (a) Differentiate between default constructor and constructor with default arguments. 8
- (b) Describe the working of constructors and destructors in inheritance. 7

## Unit III

5. (a) Write a note on Virtual destructor. 7
- (b) Explain the concept of Virtual base class using suitable example. 8
6. (a) Explain the process of concatenating two strings with the help of operator overloading. 7
- (b) Write a program to overload insertion and extraction operators. 8

## Unit IV

7. (a) What is an exception ? Discuss the try/throw/catch sequence. Explain the use of catch-All exception handler using suitable example. 8
- (b) Explain different functions used for reading and writing a text file in C++. 7
8. (a) Differentiate between function template and class template using examples. 8
- (b) What are different types of file opening modes ? Explain. 7



EXAMKIT