

2063  
B.E. (Computer Science and Engineering)  
Second Semester  
CS-201: Object Oriented Programming

Time allowed: 3 Hours

Max. Marks: 50

**NOTE:** Attempt five questions in all, including Question No. 1 which is compulsory and selecting two questions from each Unit.

x-x-x

I. Attempt the following:-

- a) Differentiate among protected and private access specifiers.
- b) What is implicit and explicit type conversion?
- c) List the operators that can not be overloaded.
- d) State ambiguity in multiple inheritance.
- e) What is EOF?

(5x2)

**UNIT - I**

- II. a) Compare and contrast structure programming v/s object oriented programming.  
b) Write a program using pointer to add two 2-D arrays. (2x5)
- III. a) What do you mean by constructor overloading? Write a program to find sum of two given nos using different methods of overloading constructors.  
b) Write down the syntax to overload unary minus and binary subtraction operator. (6,4)
- IV. Differentiate among multilevel and multiple inheritance by taking one suitable example for each. (10)

**UNIT - II**

- V. a) Write a note on sequential and random access file operations.  
b) What is a virtual and pure virtual function? Why such functions are needed?(2x5)
- VI. a) Explain various types of polymorphism? Write a procedure to add two complex numbers by overloading?  
b) Why do we need virtual destructors?

(7,3)

P.T.O.

(2)

VII. Write a short note on the following:-

- a) Recursive functions
- b) template function with multiple arguments
- c) binary vs text file
- d) reference variables

(4x2½)

x-x-x