ROLL NO .....

2005 ANDHRA UNIVERSITY

II B.TECH II SEMESTER DEGREE EXAMINATION
B.TECH INFORMATION TECHNOLOGY
OBJECT ORIENTED ANALYSIS AND DESIGN

TIME : 3 HOUR
MARK : 70

FIRST QUESTION IS COMPULSORY

ANSWER ANY FOUR FROM THE REMAINING QUESTIONS

ALL QUESTIONS CARRY EQUAL MARKS

ANSWER ALL PARTS OF ANY QUESTION AT ONE PLACE

1. (a) What are the advantages of an object-oriented paradigm? Explain the terms

b) Generic Pointer

c) Abstract class

d) Reference Variable

e) Pure Virtual Functions

f) Protected

g) Function Overloading

2. (a) Write the syntax for the C++ switch statement

(b) create the equivalent of a four function calculator. The program should request the user to enter a number , an operator and another number. If should then carry out the specified arithmetic operation : adding . subtraction , multiplying and dividing two numbers (use a switch statement to select the operations). Finally display the result. The program should be interactive to ask the user for another calculation for which the response could be Y or N.

3. Define a class string to represent a string

(a) Overload '+=' to concatenation string objects and to store result in first one.

(b) Overload '+' to concatenate two string objects, a string object & a string constant, and a string constant & a string object.

(c) Overload all relation operators to compare string objects.

4. Define a class matrix and overload the operators +,-,*,<<,>> to add , subtract and multiply a integer and a matrix. Matrix and matrix.

5. (a) What is a friend function? Explain with examples the need for a friend function.

(b) What is static member of a class? Explain how static variables can be used to count the number of active objects of a class.

(c) Distinguish between private, protected and public access classes.

6. (a) Explain multiple inheritance with the example.

(b) Explain hoe constructors are handles in multiple inheritance.

7. (a) How to implement run time polymorphism? Explain by giving suitable example.

(b) Explain about file handling in C++.

8. (a) Discuss with necessary examples error handling and exception handling in C++.

(b) Define a template class for a vector. Overload the required operators. Also overload '=' for vector assignment.