TRIBHUVAN UNIVERSITY
FACULTY OF MANAGEMENT
Office of the Dean
2009

Full Marks: 40
Time: 2 hrs

BIM / Third Semester / ITC216 : Object Oriented Programming

Candidates are required to answer the questions in their own words as far as practicable

Group 'A'

1. Brief Answer Questions: [10x1=10]

   a. Can derived class access the constructor and destructor of base class?

   b. What is the difference between function overloading and function overriding?

   c. How is object diagram different from class diagram?

   d. What does the following statement do: f.write((char*)&obj, sizeof(obj));?

   e. Which function is used to move file pointer from one location to another location in file?

   f. What do you mean by polymorphism?

   g. Differentiate between class and object.

   h. What is the importance of inheritance?

   i. What is the use of scope resolution operator?

   j. What is static member?

Group 'B'

Short Answer Question (any five): [5x3=15]

   2. What is access specifier? Explain protected access specifier with example.

   3. Explain the concept of inline function with an example. What are it's advantages and disadvantages?

   4. Write records of 10 students into a file "c\\records.doc and then read same file and display records of those students whose name starts with "b".

   5. Make a class counter which has data member count of type integer, initialize the value of count as 15 through constructor. Using ++ overloading concept decrement the value of count by 1 whenever the operator function in invoked. Use appropriate member function to initialize the object.

   6. Write down the major purpose of Use Case Diagram in object oriented programming with the help of suitable example.

   7. What is the major difference between a static member function and non-static member functions? Explain with an example.

Group 'C'

8. make a book class with member variables name, price, author_name and functions to get and show values of member variables. Make another class named grade with member variables level, 5 book objects, number_of_students, and get and show functions to get and show values of member variables. Also make main function to show uses of objects of class grade.

9. What is conversion function? Write a program to convert object of class Dollar to object of class Rupee. Attributes of class Dollar are DI and cent and that of class Rupee are Rs and Paisa.

10. When is friend function used? How friend function can be used to display values of private member variables of two classes? Explain with example.

11. Explain the concept of virtual base class? How do you implement the concept of virtual base class in C++? Give example.