BCA (SEMESTER-III) EXAMINATION, OCTOBER 2012
OBJECT ORIENTED CONCEPTS

Time: 2 Hours   **Maximum Marks: 50**

Q I. A) Define the following terms   (5x1=5)
1. Data Abstraction
2. Classes.
3. Polymorphism.
4. Multiple Inheritance
5. Encapsulation.

B) State which of the following statements are True or False. Give reasons   (5x1=5)
1. Constructors can return value.
2. Friend function can access members of a class directly.
3. Constructors can take default arguments.
4. Destructors take input parameters.
5. Object oriented programming permits reusability of the existing code.

Q.II) Answer the following:
1. Explain inline function with an example.   (2)
2. Write a program that creates a file called example.txt and inserts a sentence into it   (3)
3. Explain Benefits and limitations of object Oriented Programming.   (5)

Q.III) Answer the following:
1. What are the differences between default and parameterized constructors?   (2)
2. Explain function overloading with an example.   (3)
3. Write a program to overload arithmetic + operator for complex expressions.   (5)

Q.IV) Answer the following:
1. Explain Pure virtual Function.   (2)
2. Write a short note on Aggregation.   (3)
3. Consider an example of declaring the examination result. Design the three classes : Student, Exam and Result. The student (admno, name). Create the class exam by inheriting the Student class. Exam class consists of data member like the marks scored in 4 subjects. Derive the result from the Exam class and its has its own data members such as total_marks. Write an interactive C++ program to model this relationship.   (5)

Q.V) Answer the following:
1. What are the three parts of an iostream system.   (2)
2. What are Exceptions? Illustrate with an example.   (3)
3. What is a function template? Explain the syntax of a function template with suitable examples.   (5)

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