END TERM EXAMINATION

THIRD SEMESTER [BCA] DECEMBER 2014

Paper Code: BCA209	**Subject: Object Oriented Programming Using C++ (Batch: 2011 onwards)**
Time : 3 Hours	**Maximum Marks :75**

Note: Attempt any five questions including Q.no.1 which is compulsory.

Q1   Answer the following:-
- (a) Explain encapsulation and data hiding features of C++. (2)
- (b) Explain the persistent objects in C++. (2)
- (c) Explain garbage collection in C++. (2)
- (d) Explain ambiguity in multiple inheritances. (3)
- (e) Compare meta class and abstract class. (2)
- (f) Explain multiple catch statement used in exception handling. (2)
- (g) Compare macros and inline functions. (2)

Q2
- (a) Explain the features of procedure oriented programming. (5)
- (b) Explain the features of C and C++ programming languages. (5)
- (c) Compare features of various C++ compilers. (5)

Q3
- (a) Write a program to illustrate new and delete operators in C++. (6)
- (b) Explain *this* pointer. Give an illustration. (4)
- (c) Write a program to illustrate static function and static variable in a class. (5)

Q4
- (a) Write a C++ program to illustrate Friend Class. (5)
- (b) Write a program to illustrate operator overriding. (6)
- (c) Explain parametric polymorphism. (4)

Q5
- (a) Write a C++ program to overload the following operators:- (6)
  - (i) --
  - (ii) ++
  - (iii) !=
- (b) Write a C++ program to illustrate overloading of template functions. (6)
- (c) Explain early binding and late binding. (3)

Q6
- (a) Write a program to illustrate error handling in file operations. (5)
- (b) Explain the working of exception handling in C++. (5)
- (c) Write a C++ program to illustrate virtual base class. (5)

Q7   Write short notes on **any three** of the following:-   (5x3=15)
- (a) Class aggregation
- (b) Virtual function
- (c) STL libraries in C++
- (d) Namespace
- (e) Generic programming

****

P