JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
MCA-II Semester Supplementary Examinations, February 2010
OBJECT ORIENTED PROGRAMMING

Time: 3hours   Max.Marks:60

Answer any Five questions
All questions carry equal marks
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1.a)   Write a C++ program to obtain the sum of the first ten terms of the following
       series using recursion.

$$x - \frac{x^3}{3!} + \frac{x^5}{5!} - \frac{x^7}{7!} + \frac{x^9}{9!} ....$$

  b)   Explain the principles of OOP.

2.a)   Explain the default argument with an example.
  b)   Write a C++ program to input a matrix, determine if it is symmetrical matrix.

3.a)   Explain the inline function with an example.
  b)   Write a program to illustrate a copy constructor so that a string may be duplicated
       into another variable either by assignment or copying.

4.a)   Explain multiple inheritance with an example.
  b)   Write a program to overload unary operators.

5.a)   Explain the pure virtual functions with an example.
  b)   Write a program to call virtual function through constructor.

6.a)   Explain the formatted and unformatted console I/O operations.
  b)   Write a program for storing two employees information by using stream.

7.a)   Write a program to implement linear search with a class template.
  b)   Differentiate between templates and macros.

8a)   Write a program to reverse a positive number with exception thrown when the
       number entered is not a positive integer.
  b)   Explain the multiple catch in a try block with an example.