Fundamental of computer programming & information technology
(CS-101, Dec-2006)

Note: Section A is compulsory. Attempt any five questions from section B & C taking at least two questions from each part.

Section-A
1. a) Explain the difference between hardwired and micro programmed control.
   b) Differentiate control bus, data bus and address bus.
   c) What do you mean by classes with in the classes?
   d) What is extraction operator? Explain.
   e) How dynamic of runtime array can be created?
   f) Write the steps to initialize the static data in C++.
   g) When does an ambiguity in multiple inheritance?
   h) What the text and binary modes have to do with files?
   i) What are the various standard file pointers? What do they refer to?
   j) How can we perform I/O operations using the multiple objects?

Section-B
2. Discuss in detail the chief characteristics, capabilities and evolution of computers and what are the motivating forces behind the development of computers?
3. Write a C++ program to declare and use both the constructor and destructors.
4. Write a C++ program to compute the size of a union.
5. Write a C++ program to read a two dimensional square matrix A and display its transpose.

Section-C
6. How does inheritance occur and work in different levels? Explain with an appropriate example.
7. Write a C++ program to sort the numbers by using pointers.
8. (a) How class hierarchy works? Explain it.
   (b) How inheritance occurs and works in different levels? Explain with example.
9. How does application of IT help in industrial management technology?