Chapter 8

**SYSTEM TESTING**

**8.1 Introduction**

The purpose of testing is to discover errors. Testing is the process of trying to discover every conceivable fault or weakness in a work product. This provides a way to check the functionality of components, sub-assemblies, assemblies and/or a finished product. Testing is the process of exercising software with the intent of ensuring that the software system meets its requirements and user expectations and does not fail in an unacceptable manner. The system has been verified and validated by running the test data and live data.

**8.2 Levels of Testing**

**8.2.1 Unit Testing**

**Unit testing** is a method by which individual units of source code, sets of one or more computer program modules together with associated control data, usage procedures, and operating procedures, are tested to determine if they are fit for use.  Intuitively, one can view a unit as the smallest testable part of an application.

In object-oriented programming a unit is often an entire interface, such as a class, but could be an individual method. For unit testing first the code testing strategy is adopted, which examined the logic of program.

During the development process itself all the syntax errors etc. got rooted out. For this developed test case that result in executing every instruction in the program or module i.e. every path through program was tested. Test cases are data chosen at random to check every possible branch after all the loops.