3.14 Test Procedures And Implementation :

Testing Methodologies

We tested our system according to methodologies and testing methodologies adopted are:

- Unit testing

- Sub-system testing

- System testing

- Acceptance testing

The tested methodologies were adopted in the below given sequence.

Unit testing ➔ Subsystem testing ➔ System testing ➔ Acceptance testing

Unit Testing (White Box Testing)

Each module of the system was tested separately to ensure its proper functioning.

Activities follows in the unit testing are:

- Ensure all loops are terminated properly in this system.

- Identification and removal of abnormal termination of all loops.

Sub System Testing

A sub system testing is a collection of modules. All subsystems were tested to ensure dataflow correctness, functional validity and interface integrity.

System Testing

This testing was done once all the subsystems had been completely developed and tested independently. The system was tested to ensure proper interaction between all the subsystems. It ensures the actual working of the system. For example, if the employee ID does not exist how his committee could status could be displayed. The performance of the system was continuously monitored during this phase of testing.

Acceptance Testing (Black Box Testing)

This was the latest phase in the system testing process. The system was tested to check if confirmed to the customer's requirements. All the employee of Technical and financial department tested the respective system according to his or her requirements.

GUI Testing

Because many modern GUIs have the same look and feel, a series of standard test can be derived. Finite state modeling graph may be used to derive a series of tests that address specific data and program objects that are relevant to the GUI.

GUI testing is also known as **Functional Testing.** Functional Testing is a testing process to derive a set of input conditions that will fully exercise all functional requirements for a program. It emphasizes to find error in following categories:

- Incorrect or missing functions.

- Interface errors.

- Error in data structure or external database access.

- Performance errors.

Testing the expected Application flow or logic

The application flow is actually a series of screens through which the user can interact with the system. These screens can be depicted as state diagram where each state transition occurs via requests and responses. The behaviors of the system can be easily verified against this state diagram.

Test cases :

Test Case ID #			1	
Test Case Name			Test functionality of login form.	
Prerequisite			Login form should get loaded.	
Objective			To find out bugs in login form if exist.	
Sr.No	**Steps to be executed**	**Expected Result**	**Actual Result**	**Pass/Fail Criteria**
	Username Textbox Test cases			
1.	1. Enter Username as blank field. 2. Enter correct password. 3. Click on submit.	It should display error message "Enter username".	It displays error message "Enter username".	Pass
2.	1. Enter wrong Username 2. Enter correct password. 3. Click on submit.	It should display error message "Wrong Username or Password."	It displays error message "Wrong Username or Password."	Pass

3.	1. Enter correct username. 2. Enter password as blank field. 3. Click on submit.	It should display error message "Enter password".	It displays error message "Enter password".	Pass
4.	1. Enter correct Username. 2. Enter wrong password. 3. Click on submit.	It should display error message "Wrong Username or Password."	It displays error message "Wrong Username or Password."	Pass