**Unit Testing & JUnit**

1. What is unit testing?

# Unit testing is the individual testing of each unit or component of software testing. This test is to validate each unit of software designed as per it performance.

1. What is the difference between manual testing and automated testing?

# Manual testing is the process of executing of test cases manually without using any tools

software by a human.

Automated testing is the execution of test cases using tools, scripts and software.

1. Is it necessary to write the test case for every logic? If yes, why

# Yes, it is necessary to write a test case for each logic. With the help of test case a

tester will determine whether the test satisfies the requirements and works correctly.

1. What are the features of JUnit?

# Junit is an open source framework, which is used for writing and testing the codes.

Provide test runners for running tests.

Junit helps to write the testes faster with increased in quality.

Provides annotations to identify test methods.

1. What are the important JUnit annotations? And its usage in coding

# @beforeclass, @afterclass, @after, @before, @test are the Junit annotations.

@beforeclass is to run before any test methods in the calss.

@afterclass is to run after any test methods in the calss.

@before is to run before a test

@after is to run after a test

@Test is to method to run

1. What does Assert class?

# Assert is the method to determine status of the test whether it is a pass or fail.

Asser calss is the set of assertions useful to write the codes to determine the status of

the test.

1. What is Code Coverage?

# While a automated testing is running Code coverage is the measurement of how many

lines, blocks or arcs of the code are executed.

1. What are the best practices to perform Unit Testing?

# Knowing the test,

Designing the test well

Making the test fast,

Naming the test well,

Do not repeat the tests,

Do not ignoring the tests

1. What is Mocking?

# Mocking is creating an object which acts as an real object while testing.