1. What is unit testing?

It is the type of software testing where the individual units and the components are tested.

Main purpose is to validate whether each unit of the software performs as designed

It usually has one or more inputs and usually single output.

2- What is the difference between manual testing and automated testing?

Manual Testing:

1. Manual testing is mainly performed by the human interaction with the software.
2. Manual testing is time consuming.
3. Manual testing is not accurate at all times due to chance of human error.
4. Manual testing helps to improve human friendliness of the product as human involves.

Automatic Testing:

1-Automatic testing is mainly performed by the automatic tools.

2-Automatic testing is faster than manual.

3-Automatic testing is more reliable as it is performed by tools and scripts.

4-Automatiuc testing is less human friendly for the product.

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

Yes, doing so provides clear and deep breakdown of all components so that we can assure that every components works properly with all its functionality as it should ]d be performed.

What are the features of JUnit?

* JUnit is an open source framework, which is used for writing and running tests.
* Provides annotations to identify test methods.
* Provides test runners for running tests.
* JUnit tests allow you to write codes faster, which increases quality.
* JUnit is elegantly simple. It is less complex and takes less time

1. What are the important JUnit annotations? And its usage in coding?
2. BeforeClass – Run once before any of the test methods in the class,
3. @AfterClass – Run once after all the tests in the class have been run,
4. @Before – Run before @Test,
5. @After – Run after @Test,
6. @Test – This is the test method to run
7. What does Assert class?

Assert class provides set of assertion methods useful for writing tests.

Only failed assertions are recorded.

There are different types of assertion methods used for different  tests.

1. What is Code Coverage?

Code coverage is a measurement of how many lines/blocks of code are executed while the automated tests are running.Code coverage is collected by using a specialized tool to instrument the binaries to add tracing calls and run a full set of automated tests against the instrumented product.

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

->Arrange, Act, Assert.

->One Assert Per Test Method.

->Avoid Test Interdependence.

->Keep It Short, Sweet, and Visible.

->Recognize Test Setup Pain as a Smell.

->Add Them to the Build.

1. What is Mocking?

A mock object is a dummy implementation for an interface or a class in which you define the output of certain method calls.

 Mock objects are configured to perform a certain behaviour during a test.

They typically record the interaction with the system and tests can validate that