Solving Lab 1 (Testing) :

1- True or False:

Why is Testing necessary?

1- because software is likely to have faults true

2- To learn about the reliability of the software true

3- To fill the time between the delivery of the software and the release date false

4 To prove that the software has no faults false

5- Because testing is included in the project plan false

6- Because failures can be very expensive true

7- To avoid being sued by customers true

8- To stay in business true

2- 1- functional and non-functional testing

functional	non-functional
Functional testing verifies each function/feature of the software whereas Non Functional testing verifies non-	It is performed after the functional testing.
Functional testing can be done manually whereas Non Functional testing is hard to perform manually.	It is difficult to define the requirements for non-functional testing.

black box	white box	gray box
This testing has Low granularity. Should not understand the source code	This testing has high-level granularity.	This testing has a medium level of granularity.
It is done by end-users and also done by the tester, developers.	It is generally done by testers and developers	It is done by end-users (called user acceptance testing), also done by testers and developers.

Here, Internals are not required to be known.	Here, the Internal code of the application and database is known.	Here, Internals relevant to the testing are known.

3- What is the SDLC?

- SOFTWARE TESTING LIFE CYCLE(STLC) is a sequence of specific activities conducted during the testing process to ensure software quality goals are met •It consists of a series of activities carried out methodologically to help certify your software product
- Testing is important because faults found by users are due to poor testing
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4- What are the Testing levels ?

The testing level should be parallel with the development level in the first stage

- Software testing activities should start As soon as possible in the development life cycle

- Unit Testing : checks if software components are fulfilling functionalities or not.
- Integration Testing : checks the data flow from one module to other modules.
- System Testing : evaluates both functional and non-functional needs for the testing.
- Acceptance Testing : checks the requirements of a specification or contract are met as per its delivery.

5- What are the Testing Types?

• Manual testing includes testing a software manually

• Automation testing, which is also known as Test Automation, is when the tester writes scripts and uses another software to test the product.

Other types that should to be done in-house is called Alpha

Different between beta and alpha testing is :

Beta is Performed by customers at their own site
Alpha testing is done by testers and quality analysts inside the organization whereas Beta testing is done by real users who will be actually using the software.

Integration testing: tests individual software modules combined together as a group

re-testing and regression : Retesting is done to check that the initial bug which was found and fixed is working as it should, while regression testing is used to sweep the application for defects that may have arisen from the change or other unknown residual bugs.
Re-testing is running a test again; regression testing looks for unexpected side effects

7- Who does Testing?

Software Tester
Software Developer
Project Lead/Manager
End User