Q-1

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 **[False]**
8- To stay in business **[True]**

Q-2 compare between

Functional Testing	Non-Functional Testing
1- testing the software functions working as needed. 2- verify that the app is working as expected and fulfill the needed functionality. Ex: unit testing	1-test the performance of the app like the server performance. 2-test the security of the software and the server.

Black Box	White box	Gray box
-Called functional testing techniques. -Done by software tester, pm -No programming or implementation knowledge required. -Done by higher levels of testing like acceptance testing and system testing.	-Called structural testing techniques. -The internal structure , design and implementation are known to the tester. -Done by software developer. -Programming knowledge is required. -Done by lower levels of testing like Unit testing and integration testing.	- Tester has more information than the tester in black box testing and less information than white box testing. -Identify input based on white box and black-box testing techniques. -Can be done in different ways like Matrix testing, regression, pattern testing.

Q-3 What is the SDLC?

-Software Development Life Cycle: is a process used by software development teams to design, develop, test, and deploy high-quality software. It is a systematic approach to software development that provides a framework for planning, structuring, and controlling the process of developing information systems.

Includes : 1-requirements **2-A**nalysis **3**-Design **4-I**mplementation **5-T**esting **6-E**volution

Q-4 What are the Testing levels?

-Acceptance testing
-System testing
-Integration testing
-Unit testing

Q-5 What are the Testing Types?

-Manual testing:
Testing a software manually, without using any automated tool.

-Automation testing
Known as Test Automation, is when the tester writes scripts
and uses another software to test the product. This process involves automation of a manual process.

Q-6 The difference between TDD and DDD and BDD

-**TDD (test driven development)**: is a software development approach where tests are written before the actual code. The development cycle in TDD typically follows the pattern of :
-Red : for falling test case.
-Green : write the minimum amount of code to pass the test.
-Refactor : clean the code without changing it's behavior.

-DDD (Domain driven design): is a set of principles and patterns for building complex software systems that revolve around a shared understanding of the business domain.

-BDD (Behavior-Driven Development):is an agile software development technique that encourages collaboration among developers, QA, and non-technical stakeholders to define and verify the behavior of a system through scenarios written in natural language.

Q-7 Who does Testing?
- S.W tester.
- S.W developer.
- project manager.
-End user, client and customer