**1. What different types of manual testing are there?**

Different types of manual testing are;

* + Black Box Testing
  + White Box Testing
  + Unit Testing
  + System Testing
  + Integration Testing
  + Acceptance Testing

**2. What are the two main categories of software testing?**

Software testing is a huge domain but it can be broadly categorized into two areas such as :

1. Manual Testing
2. Automation Testing

Differentiate both of them.

* Manual Testing – [Manual Testing](https://www.edureka.co/blog/what-is-manual-testing/) is the oldest type of software testing where the testers manually execute test cases without using any test automation tools. It means the software application is tested manually by QA testers.
* Automation Testing – [Automation Testing](https://www.edureka.co/blog/automation-testing-tutorial/) is the process of using the assistance of tools, scripts, and software to perform test cases by repeating pre-defined actions. Test Automation focuses on replacing the manual human activity with systems or devices that enhance efficiency.

**3. What exactly is quality control? Is it similar to Quality Assurance?**

* Quality control is a product-oriented approach of running a program to determine if it has any defects, as well as making sure that the software meets all of the requirements put forth by the stakeholders.

**4. What are the different levels of manual testing?**

Four levels of manual testing are:

* [Unit testing](https://www.edureka.co/blog/what-is-unit-testing) – It is a way of testing the smallest piece of code referred to as a unit that can be logically isolated in a system. It is mainly focused on the functional correctness of the standalone module.
* [Integration Testing](https://www.edureka.co/blog/what-is-integration-testing-a-simple-guide-on-how-to-perform-integration-testing/) – It is a level of software testing where individual units are combined and tested to verify if they are working as they intend to when integrated. The main aim here is to test the interface between the modules.
* **System Testing** – In system testing all the components of the software are tested as a whole in order to ensure that the overall product meets the requirements specified. There are dozens of types of system testing, including usability testing,regression testing, and functional testing.
* **User Acceptance Testing** – The final level, acceptance testing, or UAT (user acceptance testing), determines whether or not the software is ready to be released.

**5. Explain the procedure for manual testing?**

The manual testing process comprises the following steps:

* Planning and Control
* Analysis and Design
* Implementation and Execution
* Evaluating exit criteria and Reporting
* Test Closure activities

**6. What is the test case?**

* A [test case](https://www.edureka.co/blog/test-case-in-software-testing/) is a document which has a set of conditions or actions that are performed on the software application in order to verify the expected functionality of the feature.
* Test cases describe a specific idea that is to be tested, without detailing the exact steps to be taken or data to be used. For example, in a test case, you document something like ‘*Test if coupons can be applied on actual price*‘.

**7. What’s the difference between verification and validation in testing?**

|  |  |
| --- | --- |
| Verification | Validation |
| It is a static analysis technique. Here, testing is done without executing the code. Examples include – Reviews, Inspection, and walkthrough. | It is a dynamic analysis technique where testing is done by executing the code. Examples include functional and non-functional testing techniques. |

**8. What’s the difference between a bug and a defect?**

A [bug](https://www.edureka.co/blog/bugs-in-software-testing/#softwaretestingbugs) is a just fault in the software that’s detected during testing time. A defect is a variance between expected results and actual results, detected by the developer after the product goes live.

**9. What is the test deliverable? Explain**

* Test deliverables are a set of tools, documents, and components that are maintained and developed in support of test

There are different test deliverables at every phase of the software development lifecycle

* Before Testing
* During Testing
* After the Testing

**10. What is API testing?**

[API testing](https://www.edureka.co/blog/what-is-api-testing) is a type of software testing where application programming interfaces (APIs) are tested to determine if they meet expectations for functionality, reliability, performance, and security. In simple terms, API testing is intended to reveal bugs, inconsistencies or deviations from the expected behavior of an API.

**11. What are the phases involved in the Software Testing Life Cycle?**

The different phases involved in the [software testing life cycle](https://www.edureka.co/blog/software-testing-life-cycle/#stlc) are:

|  |  |
| --- | --- |
| Phases | Explanation |
| Requirement Analysis | QA team understands the requirement in terms of what we will testing & figure out the testable requirements. |
| Test Planning | In this phase, the test strategy is defined. Objective & the scope of the project is determined. |
| Test Case Development | Here, detailed test cases are defined and developed. The testing team also prepares the test data for testing. |
| Test Environment Setup | It is a setup of software and hardware for the testing teams to execute test cases. |
| Test Execution | It is the process of executing the code and comparing the expected and actual results. |
| Test Cycle Closure | It involves calling out the testing team member meeting & evaluating cycle completion criteria based on test coverage, quality, cost, time, critical business objectives, and software. |

**12. What is black box testing?**

[Black-Box Testing](https://www.edureka.co/blog/software-testing-methodologies-and-techniques/#BlackBoxTechniques), also known as specification-based testing, analyses the functionality of a software/application without knowing much about the internal structure/design of the item. The purpose of this testing is to check the functionality of the system as a whole to make sure that it works correctly and meets user demands

**13. What is white box testing, and what are the various techniques?**

* [White-Box Testing](https://www.edureka.co/blog/software-testing-methodologies-and-techniques/#WhiteBoxTechniques) also known as structure-based testing, requires a profound knowledge of the code as it includes testing of some structural part of the application. The purpose of this testing is to enhance security, check the flow of inputs/outputs through application and to improve design and usability. Various white-box testing techniques are:
* Statement Coverage
* Decision Coverage
* Condition Coverage
* Multiple Condition Coverage

**14. What are the cases when you’ll consider to choose automated testing over manual testing?**

Automated testing can be considered over manual testing during the following situations:

* When tests require periodic execution
* Tests include repetitive steps
* Tests need to be executed in a standard runtime environment
* When you have less time to complete the testing phase
* When there is a lot of code that needs to be repeatedly tested
* Reports are required for every execution

15.  **What is Integration testing?**

* [Integration testing](https://www.guru99.com/integration-testing.html) is a level of software testing process, where individual units of an application are combined and tested. It is usually performed after unit and functional testing.

16. **How can you eliminate the product risk in your project?**

It helps you to eliminate product risk in your project, and there is a simple yet crucial step that can reduce the product risk in your project.

* Investigate the specification documents
* Have discussions about the project with all stakeholders including the developer
* As a real user walk around the website

17.  **What is the common risk that leads to project failure?**

The common risk that leads to a project failure are

* Not having enough human resource
* Testing Environment may not be set up properly
* Limited Budget
* Time Limitations

18. **Testing wherein we subject the target of the test, to varying workloads to measure and evaluate the performance behaviors and the ability of the target and the test to continue to function properly under these different workloads?**

* Load Testing

19. What is regression testing?

* Every time new module is added leads to changes in program. This type of testing make sure that whole component works properly even after adding components to the complete program.

20.  **What is the difference between re-testing and regression testing?**

* Re-testing ensures the original fault has been removed; regression testing looks for unexpected side effects.

21. **"How much testing is enough?"**

The answer depends on the risk for your industry, contract and special requirements.

22 . **What is Alpha testing?**

Pre-release testing by end user representatives at the developer's site.

**23 . What is beta testing?**

Testing performed by potential customers at their own locations.

**24. What makes a good test engineer?**

A software test engineer is a professional who determines how to create a process that would best *test* a particular product in the software industry.

* A good test engineer should have a ‘test to break’ attitude, an ability to take the point of view of the customer
* Strong desire for quality and attention to minute details
* Tact and diplomacy to maintain a cooperative relationship with developers
* Ability to communicate with both technical (developers) and non-technical (customers, management) people
* Prior experience in the software development industry is always a plus
* Ability to judge the situations and make important decisions to test high-risk areas of an application when time is limited

**25. What are the Experience-based testing techniques?**

[Experienced-based testing](https://www.edureka.co/blog/software-testing-methodologies-and-techniques/#ExperienceBasedTechniques) is all about discovery, investigation, and learning. The tester constantly studies and analyzes the product and accordingly applies his skills, traits, and experience to develop test strategy and test cases to perform necessary testing. Various experience-based testing techniques are:

* Exploratory Testing
* Error Guessing