* **Software Testing Concepts:**

Software testing is a crucial process in the development of software applications. It involves evaluating the functionality of a software program to ensure that it meets the specified requirements and works correctly.

* Test planning
* Test cases
* Test execution
* Defect tracking
* Regression testin
* Test automation
* **What is Software?**

Software is a set of instructions, programs, or data that tell a computer or electronic device how to perform specific tasks or functions. It is a collection of code written in a programming language that enables computers to execute various operations, such as running applications, processing data, and interacting with users.

* **Types of Software**

Software can be classified into two main categories: system software and application software. System software includes operating systems, device drivers, and utilities that help manage the hardware and provide a platform for running application software. Application software, on the other hand, includes programs designed for specific tasks or purposes, such as word processing, graphic design, or gaming.

* **What is Software Testing?**

Testing is the process of evaluating a software application or system to identify any defects, errors, or issues that may impact its functionality, performance, or usability. It involves running the software under various conditions to verify that it behaves as expected and meets the specified requirements.

* **Why Software Testing is Important?**
* Quality assurance
* Customer satisfaction
* Cost-effectiveness
* Risk management
* Compliance
* **What is Software Quality?**

Software quality refers to the degree to which a software product meets the specified requirements, standards, and user expectations. It encompasses various aspects of the software, including functionality, reliability, performance, usability, security, and maintainability.

* **Why the Software has bug?**
* Human error
* Incomplete or ambiguous requirements
* Time constraints
* Complexity of software
* Changes in requirementsEnvironmental factors
* Lack of testing
* **Bug/Defect, Failure**

A software bug is a computer program or system error, error, defect or fault; which causes the computer to produce erratic or unexpected results, or to behave unintended. The process of finding and solving bugs is called debugging. Conventional techniques or tools are often used for this.

* **What is Manual Testing?**

Manual testing is a software testing technique where testers manually execute test cases without the use of automated testing tools or scripts. In manual testing, testers interact with the software application as an end user would, exploring its features, functionalities, and user interface to identify defects, bugs, or issues.

* **Why we need manual testing?**

Manual testing is an essential part of the software testing process and serves several important purposes in ensuring the quality, reliability, and usability of software applications. Here are some reasons why manual testing is needed:

* Human judgment and intuition
* Exploratory testing
* Usability testing
* Ad hoc testing
* Early defect detection
* Flexibility and adaptability
* Cost-effectiveness

**How to perform Manual Testing?**

* Understand Requirements
* Create Test Plan
* Design Test Cases
* Prepare Test Data
* Execute Test Cases
* Document Test Results
* Report Defects
* Perform Regression Testing
* Validate Fixes
* Communicate Results
* Iterate and Improve

**Types of Manual Testing**

* Functional Testing
* User Interface (UI) Testing
* Compatibility Testing
* Regression Testing
* Smoke Testing
* Sanity Testing
* Acceptance Testing

**Advantage & Disadvantage of Manual Testing**

* Human Judgment
* Exploratory Testing
* User Perspective
* Cost-Effective for Small Projects
* Flexibility
* Disadvantages of Manual Testing:
* Time-Consuming
* Resource-Intensive
* Subject to Human Error
* Limited Test Coverage
* Repetitive Tasks
* **Goal of Manual Testing:**

The goal of manual testing is to ensure the quality, functionality, usability, and performance of a software application by validating its features, identifying defects, and verifying that it meets specified requirements. Manual testing aims to uncover issues that automated tests may not detect, assess the application from a user's perspective, and ensure that it delivers a positive user experience.