**What is Software Testing? (2 marks)**

**Software Testing** is the process of **evaluating a software application** to ensure it works correctly, meets requirements, and is free of defects. The goal is to identify **bugs, errors, or missing requirements** so the software behaves as expected under various conditions.

It helps ensure **quality**, **reliability**, and **performance** before deployment.

**Steps Involved in Software Testing (5 marks)**

**1. Test Planning (1 mark)**

* Involves defining the **scope, objectives, resources, and schedule** for testing.
* A **test plan document** is created, detailing which features will be tested and how.

**2. Test Case Design (1 mark)**

* Individual **test cases** are written with input data, expected output, and steps to execute.
* Covers **normal, boundary, and error conditions**.

**3. Test Environment Setup (1 mark)**

* Preparing the **hardware, software, and network configuration** where testing will be executed.
* Ensures the environment mirrors real-world use as closely as possible.

**4. Test Execution (1 mark)**

* Running the test cases and recording the **actual outcomes**.
* May be done **manually** or using **automated tools**.

**5. Defect Reporting and Retesting (1 mark)**

* If actual results don't match expected results, **bugs are logged**.
* After developers fix the issues, tests are **re-run (retesting)** to confirm the fix.