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**Manual Testing Syllabus**

**1) Software Testing Introduction**

> What is Software testing?  
> Importance of Software testing  
> How to conduct Software testing.  
> Basic terminology of Software testing  
> Manual Testing Process  
> Difference between Manual and Automated Testing  
> Software testing Roles and Responsibilities

**2) Software Development Life Cycle and various SDLC Models**

**Phases of**[**Software Development Life Cycle**](https://www.gcreddy.com/2021/06/software-development-life-cycle.html)

i) Requirements Phase.  
ii) Analysis Phase.  
iii) Design phase.  
iv) Coding Phase.  
v) Testing phase.  
vi) Release and Maintenance Phase.

**Software Development Life Cycle Models**

i) [Waterfall Model.](https://www.gcreddy.com/2021/06/waterfall-model.html)  
ii) [V Model](https://www.gcreddy.com/2021/06/v-model.html)  
iii) [Agile Model.](https://www.gcreddy.com/2021/06/agile-development-model.html)  
iv) Prototype Model.  
v) [Spiral Model.](https://www.gcreddy.com/2021/06/spiral-model.html)  
Etc…

[**3) Test Case Design Techniques**](https://www.gcreddy.com/2016/04/software-test-design-techniques.html)

**Static Techniques:**

i) Informal Reviews  
ii) Walkthroughs  
iii) Technical Reviews  
iv) Inspection

**Dynamic Techniques:**

**a) Black-box Test Techniques**

i) Equivalence Partitioning  
ii) Boundary Value Analysis  
iii) Decision Table Testing  
iv) State Transition Testing  
v) Use Case Testing

**b) White-box Test Techniques**

i) Statement Coverage Testing  
ii) Branch Coverage Testing  
iii) Path Coverage Testing  
iv) Conditional Coverage Testing  
v Loop Coverage Testing  
Etc…

**c) Experience-based Test Techniques**

i) Error Guessing  
ii) Exploratory Testing  
iii) Checklist-based Testing

**4) Levels and Types of Software Testing**

[**Four Levels of Testing**](https://www.gcreddy.com/2021/07/software-test-levels.html)

i) Unit Testing  
ii) Integration Testing  
iii) System Testing  
iv) Acceptance Testing

[**Types of Testing**](https://www.gcreddy.com/2021/07/types-of-software-testing.html)

**i) Functional Testing**

Unit Testing  
Integration Testing  
System Testing  
User Acceptance Testing.  
Sanity/Smoke Testing.  
Re & Regression Testing.  
etc…

**Note:**  
Functional Testing is a Test type, and Unit Testing, Integration Testing, System Testing and Acceptance Testing are the Test levels.

Functional Testing is conducted in all Test Levels (Unit, Integration, System, and Acceptance Testing)

Sanity and Smoke Testing are Test Execution levels of Functional Testing

Retesting and Regression are for Change-related Testing.

**ii) Non-Functional Testing**

Performance Testing. (Load, Stress, Spike and Endurance Testing)  
Usability Testing  
Compatibility Testing  
Reliability Testing  
Security Testing  
Cookies Testing  
Session Testing  
Recovery Testing  
Installation Testing  
Adhoc Testing.  
Risk-Based Testing.  
I18N Testing.  
L1ON Testing.  
Compliance Testing.  
Etc…

[**5) Software Testing Life Cycle**](https://www.gcreddy.com/2021/07/software-testing-life-cycle.html)

**i) Requirements Analysis/Design**

Understand the requirements  
Prepare Traceability Matrix

**ii) Test Planning**

**iii) Test Case Design**

Derive Test Scenarios  
Document Test cases  
Collect Test data  
Review Test cases

**iv) Test Environment Setup**

**v) Test Execution**

Sanity Testing – Initial build acceptance testing  
Comprehensive Testing – executing all possible test cases  
Reporting and Tracking Defects

Regression Test Cycle 1  
Sanity Testing…  
Retesting Regression Testing  
Reporting and Tracking Defects

Regression Test Cycle 2  
Sanity Testing…  
Retesting Regression Testing  
Reporting and Tracking Defects  
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Final Regression

**vi) Test Cycle Closure**

[**Software Test Documents**](https://www.gcreddy.com/2022/01/test-documentation-templates.html)

*We create & use test documents before, during, and after Software Testing.*

1. Test Policy  
2. Test Strategy  
3. [System Test Plan](https://www.gcreddy.com/2021/07/test-plan-documentation.html)  
4. Requirements Traceability Matrix  
5. Test Scenario  
6. [Test Case](https://www.gcreddy.com/2021/07/test-case-documentation.html)  
7. Test Data  
8. [Test Metrics](https://www.gcreddy.com/2021/07/software-test-metrics-report.html)  
9. [Defect Report](https://www.gcreddy.com/2021/07/software-defect-reporting.html)  
10. [Test Summary Report](https://www.gcreddy.com/2021/07/test-summary-report.html)