SOFTWARE TESTING COURSE – (ST-01)- ONLINE CLASSES.

SYLLABUS

1. **Fundamentals of Testing**
   1. **Software Testing As a Career (Being a "Quality" Tester with Personality, Attitude and Cognition)**
   2. **Software Testing made up of Professional Etiquettes and Basic Clinical Skills**
   3. **What is Software Testing**
   4. **Why organization need Software Testing**
   5. **Principles of Software Testing**
   6. **Software Development Life Cycle (SDLC)**
   7. **Software Testing Life Cycle (STLC)**
2. **Methodologies of SDLC and STLC**
   1. **Waterfall Model**
   2. **V-Model**
   3. **Prototype Model**
   4. **Incremental Model**
   5. **RAD Model**
   6. **Spiral Model**
3. **Agile Methodology**
   1. **Sprint Planning**
   2. **Scrum Meeting**
4. **Software Testing Terminology**
   1. **Software Testing Life cycle (STLC)**
5. **Types Of Testing**
   1. **Functional Testing**

      a) Unit Testing
      b) Smoke Testing
      c) Integration Testing
      d) Interface Testing
      e) Retesting and Regression Testing Process
      f) Sanity Testing

   2. **Adhoc Testing**

      a) Exploratory Testing
      b) Defect Seeding
      c) Pilot Testing
      d) System Testing
      e) Localization/Internationalization Testing

   3. **Usability Testing**

a) User Interface (UI) Testing
b) Manual Support Testing

4. **Functionality Testing**

a) GUI Coverage or Behavioural Coverage
b) Error Handling Coverage
c) Input Domain Coverage
d) Manipulations Coverage
e) Order of Functionalities
e) Back end Coverage

5. **User Acceptance Testing (UAT)**
6. **Non-Functional Testing**

a) Load Testing
b) Stress Testing
c) Data Volume Testing
d) Compliance Testing
e) Recovery Testing
f) Compatibility Testing
g) Configuration Testing
h) Inter system Testing
i) Installation/Un-installation Testing
j) Parallel Testing
k) Security Testing

6. **Test Design Techniques with Methodologies**
   1. **White Box Testing**

a) Statement Coverage
b) Decision Coverage
c) Condition Coverage

   2. **Black Box Testing**

a) Equivalence Partitioning & Boundary Value Analysis
b) Decision Table Testing
c) State Transition Diagram
d) Use Case Testing

   3. **Test Cases**

a) Structure of Test Cases
b) Test Case Design
c) Test case Preparation
d) Functional Test Case Preparation
e) GUI Test Case Preparation

f) Test Data Preparation
g) Test case Review
h) Test Case Execution

4. **Verification & Validation**

a) What is Quality
b) Software Quality Assurance (SQA)
c) Software Quality Control (SQL)

5. **Defect and Defect Life Cycle**

a) Defect Life Cycle and Defect Status
b) Defect Chaining Process
c) Severity Vs Priority
d) Bug or Defect Reporting and Tracking
e) How to Report/Write Defects
f) Test summary Report Preparation

7. **Defect Management**
   1. **Types of Defects**

a) User Interface (UI) Defects
b) Error Handling Defects
c) Input Domain Defects
d) Manipulation Defects

8. **Bug/Defect Tracking Tools**
   1. **Bugzilla**
   2. **JIRA**

9. **Types of Review**
   1. **Walkthrough**
   2. **Inspection**
   3. **Technical Review**

a) Internal Audit
b) External Audit

10. **CMMI Levels**
11. **Test Metrics**
12. **Risk Analysis:**
    1. **Risk Analysis and Risk Management**
    2. **Risk Mitigation and Graph**
    3. **Broadcasts Receivers**

a) Built In Receivers
b) Custom Receiver
c) Sending Broadcast

13. Incidents
    1. Incident Management
14. Test Management and Documentation
    1. Test Plan Documents
    2. Test Strategy
    3. Use Case Based Documents
15. Advance Stuff
    1. Complete Web Application, Mobile Application Testing Check-list
    2. Practical Tips and Tricks to Create Test Data
16. Software Testing Reports
    1. Bug Report
    2. Requirement Traceability Matrix (RTM)