

# Certified Tester

## Foundation Level - Agile Tester

### **1. Agile Software Development - 150 mins.**

#### *1.1 The Fundamentals of Agile Software Development*

- 1.1.1 Agile Software Development and the Agile Manifesto
- 1.1.2 Whole-Team Approach
- 1.1.3 Early and Frequent Feedback

#### *1.2 Aspects of Agile Approaches*

- 1.2.1 Agile Software Development Approaches
- 1.2.2 Collaborative User Story Creation
- 1.2.3 Retrospectives
- 1.2.4 Continuous Integration
- 1.2.5 Release and Iteration Planning

### **2. Fundamental Agile Testing Principles, Practices, and Processes – 105 mins.**

#### *2.1 The Differences between Testing in Traditional and Agile Approaches*

- 2.1.1 Testing and Development Activities
- 2.1.2 Project Work Products
- 2.1.3 Test Levels
- 2.1.4 Testing and Configuration Management
- 2.1.5 Organizational Options for Independent Testing

#### *2.2 Status of Testing in Agile Projects*

- 2.2.1 Communicating Test Status, Progress, and Product Quality
- 2.2.2 Managing Regression Risk with Evolving Manual and Automated Test Cases

#### *2.3 Role and Skills of a Tester in an Agile Team*

- 2.3.1 Agile Tester Skills
- 2.3.2 The Role of a Tester in an Agile Team

### **3. Agile Testing Methods, Techniques, and Tools – 480 mins.**

#### *3.1 Agile Testing Methods*

- 3.1.1 Test-Driven Development, Acceptance Test-Driven Development, and Behavior-Driven Development
- 3.1.2 The Test Pyramid
- 3.1.3 Testing Quadrants, Test Levels, and Testing Types
- 3.1.4 The Role of a Tester

#### *3.2 Assessing Quality Risks and Estimating Test Effort*

- 3.2.1 Assessing Quality Risks in Agile Projects
- 3.2.2 Estimating Testing Effort Based on Content and Risk

### 3.3 Techniques in Agile Projects

- 3.3.1 Acceptance Criteria, Adequate Coverage, and Other Information for Testing
- 3.3.2 Applying Acceptance Test-Driven Development
- 3.3.3 Functional and Non-Functional Black Box Test Design
- 3.3.4 Exploratory Testing and Agile Testing

### 3.4 Tools in Agile Projects

- 3.4.1 Task Management and Tracking Tools
- 3.4.2 Communication and Information Sharing Tools
- 3.4.3 Software Build and Distribution Tools
- 3.4.4 Configuration Management Tools
- 3.4.5 Test Design, Implementation, and Execution Tools
- 3.4.6 Cloud Computing and Virtualization Tools

## **4. References, Standards, ISTQB Documents, Books, Agile Terminology, Other References**