

# ISTQB

## Basics of Software testing

General terms of testing and explains the following in detail.

- ❖ Why is Testing Necessary?
- ❖ What is Testing
- ❖ General Testing Principles
- ❖ Fundamental Test Processes
- ❖ Psychology of Testing

## Life Cycle Testing

Narrates how testing runs parallel with development process in SDLC. The main topics are as follows:

- ❖ Software Development Models
- ❖ Distinction: testing - checking, verification - validation
- ❖ General "V Model", identification of phase results
- ❖ Benefits of early tests; iterative tests
- ❖ Testing within the life cycle models

## Test Levels

- ❖ Component Testing (unit testing)
- ❖ Integration Testing
- ❖ System Testing
- ❖ Acceptance Testing

## Test Types:

- ❖ Functional Testing
- ❖ Non-functional Testing
- ❖ Structural Testing
- ❖ Testing changes - Confirmation and Regression Testing
- ❖ Maintenance Tests
- ❖ Testing once changes have been made

## Dynamic Test

The main objective of this chapter is how to write effective test cases looking into requirements.

Objectives are:

Identifying test conditions and designing test cases

condition, test case, and test procedure.

### **Categories of test design techniques**

- ❖ specification-based (black-box), structure-based (white-box)
- ❖ Specification-based or black-box techniques
- ❖ equivalence partitioning, boundary value analysis
- ❖ decision tables, state transition diagrams
- ❖ Structure-based or white-box techniques
- ❖ Experience-based techniques
- ❖ Choosing test techniques

### **Static Test**

Static testing is a verification process. Following are narrated in this chapter

### **Reviews and the test process**

- ❖ Review Process
- ❖ Formal review
- ❖ Informal review
- ❖ Technical review
- ❖ Walkthrough
- ❖ Inspection
- ❖ Static analysis by tools

### **Test Management**

Objectives of Test Management are as follows:

- ❖ Test organization
- ❖ Test planning and estimation
- ❖ Test progress monitoring and control
- ❖ Configuration management
- ❖ Risk and testing
- ❖ Incident Management

### **Overview of this chapter are as follows:**

- ❖ Types of test tools
- ❖ Effective use of tools: potential benefit and risks

❖ Introducing a tool into an organization