



Software Testing

University of Oslo, **Department of informatics**

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Chapter 1

Fundamentals of testing

Part I: Close-ended questions

Question 1

A company recently purchased a commercial **off-the-shelf** application to automate their bill-paying process. They now plan to run an **acceptance test** against the package **prior** to putting it into **production**. Which is their most likely **reason** for **testing**?

- a. To build confidence in the application
- b. To detect bugs in the application
- c. To gather evidence for a lawsuit
- d. To train the users

Question 2

According to the **ISTQB Glossary**, the word '**bug**' is **synonymous** with which of the following words?

- a. Incident
- b. Defect
- c. Mistake
- d. Error



Question 3

According to the **ISTQB Glossary**, a _____ relates to **negative** consequences that **could occur**.



Question 4

Ensuring that **test design** starts during the **requirements definition phase** is **important** to enable which of the following **test objectives**?

- a. Preventing defects in the system
- b. Finding defects through dynamic testing
- c. Gaining confidence in the system
- d. Finishing the project on time



Question 5

An **exhaustive test suite** would include:

- a. All combinations of input values and preconditions
- b. All combinations of input values and output values
- c. All pairs of input values and preconditions
- d. All states and state transitions



Question 6

According to the ISTQB Glossary, **regression testing** is required for what **purpose**?

- a. To verify the success of corrective actions
- b. To prevent a task from being incorrectly considered completed
- c. To ensure that defects have not been introduced by a modification
- d. To motivate better unit testing by the programmers

Question 7

Which of the following is most **important** to promote and maintain **good relationships** between **testers** and **developers**?

- a. Understanding what managers value about testing
- b. Explaining test results in a neutral fashion
- c. Identifying potential customer work-arounds for bugs
- d. Promoting better quality software whenever possible



Question 8

Which of the statements below is the best assessment of how **test principles** apply across the **test life-cycle**?

- a. Test principles only affect the preparation for testing
- b. Test principles only affect test execution activities
- c. Test principles affect the early test activities such as review
- d. Test principles affect activities throughout the test life-cycle



Question 9

Is “**evaluation of exit criteria**” for of the **fundamental test process**?

- a. True
- b. False



Question 10

Pair the following **processes** with their corresponding **activities**:

1. Test plan	A. Group tests into scripts
2. Test analysis	B. Write or extract a test summary report for the stakeholders
3. Test implementation	C. Transform test objectives into test conditions and test cases
4. Test reporting	D. Establish the scope, objectives, and risks of testing

Part II: Exercises and Open-ended questions

Exercise

A test team consistently **finds** between **90** and **95%** of the **defects present** in the **system** under test. While the **test manager** understands that this is a **good defect-detection** percentage, **senior management** and executives remain **disappointed**, saying that the test team **misses too many bugs**. Given that the **users** are generally **happy** with the system and that the **failures** which have occurred have generally been **low impact**, which of the **testing principles** is most likely to help the test manager **explain** why some **defects** are **likely** to be **missed**?

Exhaustive testing is impossible

Defect clustering

Pesticide paradox

Absence-of-errors fallacy

Open-Ended Questions

Can you give **examples** of **internal** and **external causes** of **defects**? Which one do you consider to be the most **important**?

Why is it important to **check** a software **system** if it is **fit for use**?

What **qualities** should a **tester** have, if you were to **hire** him?



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