Software Development Lifecycle Models

### Question 1

Which of the following software development models BEST exemplifies a model that does NOT support the principle of early testing?

**a) The Waterfall model**

b) The V-model

c) The Incremental development model

d) The Iterative development model

### Question 2

Which one of the following is the BEST definition of an incremental development model?

**a) Defining requirements, designing software and testing are done in phases where in each phase a piece of the system is added**

b) A phase in the development process should begin when the previous phase is complete

c) Testing is viewed as a separate phase which takes place after development has been completed

d) Testing is added to development as an increment

### Question 3

Preparing and automating test cases before coding is called:

a) Test first approach

b) Test-driven development

**c) Both A & B**

d) None of the above

### Question 4

Which of the following are characteristics of good testing in any life cycle model?

I. Every development activity has a corresponding test activity

II. Testers review development documents early

III. Each test level is based on the same test basis

IV. Each test level has objectives specific to that level

a) I, IV and III

b) II, III and I

c) I, III and IV

**d) I, II and IV**

### Question 5

Consider the following statements about the reasons to adapt life cycle models for specific projects or products:

Different projects have different goals.

II The life cycle model should be adapted to suit all types of development within the company for consistency.

III Different types of product have different product risks.

IV Business priorities are different depending on the context of the project or product.

V Different test environments may be necessary.

Which of the statements are true?

**a) I, III and IV**

b) I, II and IV

c) III, IV and V

d) II, IV and V

### Question 6

Which of the following is a true statement regarding the V-model lifecycle?

a) Testing involvement starts when the code is complete

**b) The test process is integrated with the development process**

c) The software is built in increments and each increment has activities for requirements, design, build and test

d) All activities for development and test are completed sequentially

### Question 7

We split testing into distinct stages primarily because:

**a) Each test stage has a different purpose**

b) It is easier to manage testing in stages

c) We can run different tests in different environments

d) The more stages we have, the better the testing

### Question 8

In an iterative lifecycle model, which of the following is an accurate statement about testing activities?

**a) For every development activity, there should be a corresponding testing activity**

b) For every testing activity, appropriate documentation should be produced, versioned and stored

c) For every development activity resulting in code, there should be a testing activity to document test cases

d) For every testing activity, metrics should be recorded and posted to a metrics dashboard for all stakeholders

### Question 9

Which of the following is the BEST reason for selecting a particular type of software development lifecycle model?

a) Tester skill level with the software development model

b) The project manager's preference

c) The project team's overall familiarity with the model

**d) The type of product being developed**

### Question 10

Given the following statements about the relationships between software development activities and test activities in the software development lifecycle:

1. Each development activity should have a corresponding testing activity

2. Reviewing should start as soon as final versions of documents become available

3. The design and implementation of tests should start during the corresponding development activity

4. Testing activities should start in the early stages of the software development lifecycle

Which of the following CORRECTLY shows which are true and false?

a) True – 1, 2; False – 3, 4

b) True – 2, 3; False – 1, 4

c) True – 1, 2, 4; False – 3

**d) True – 1, 4; False – 2, 3**

### Question 11

What are good practices for testing within the development life cycle?

a) Early test analysis and design

b) Different test levels are defined with specific objectives

c) Testers will start to get involved as soon as coding is done

**d) A and B above**

### Question 12

In practice, which Life Cycle model may have more, fewer or different levels of development and testing, depending on the project and the software product. For example, there may be component integration testing after component testing, and system integration testing after system testing

a) Waterfall Model

**b) V-Model**

c) Spiral Model

d) RAD Model

### Question 13

What is important to do when working with software development models?

**a) To adapt the models to the context of project and product characteristics**

b) To choose the waterfall model because it is the first and best proven model

c) To start with the V-model and then move to either iterative or incremental models

d) To only change the organization to fit the model and not vice versa

### Question 14

Which one of the following is true of software development models?

a) There are always four test levels in the V-model

b) In a Rapid Application Development (RAD) project, there are four test levels for each iteration

**c) In Agile development models, Self-organizing teams, where the whole team is responsible for quality and gives testers more autonomy in their work.**

d) There must be at least four test levels for any software development model

### Question 15

In any software development life cycle (SDLC) model, which of the following are characteristics of good testing?

I. For every development activity, there is a corresponding test activity

II. Each test level has test objectives specific to that level

III. Test analysis and design for a given test level begin during the corresponding development activity

IV. Testers participate in discussions to define and refine requirements and design as soon as drafts are available

a) I, II, III

b) I, II, IV

**c) I, II, III, IV**

d) I, III, IV