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Building Tomorrow's Enterprise

Infosys Global Agile Developer Certification

Practice Questions

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1 TEST DRIVEN DEVELOPMENT

Question 1

Test Driven Development practice is originated from which of the following Agile methods?

a) SCRUM
b) XP (eXtreme Programming)
c) DSDM (Dynamic System Development Methodology)
d) KANBAN

Question 2

Which of the following is a true statement for TDD?

i. It is done by testing team personals.
ii. It is done after the design is complete.
iii. It is done by the developer in parallel to writing the code.
iv. The tests once written are good for always. They need not be changed in future.

a) Only 'i'
b) Only 'ii' and 'iii'
c) Only 'iii'
d) Only 'iii' and 'iv'

Question 3

What is TDD?

a) It is a Development method
b) It is a Testing method
c) It is an subset of feature driven development approach
d) All of the above

Question 4

What does ATDD stands for?

a) Agile Test Driven Development
b) Application Test Driven Development
c) Adaptive Test Driven Development
d) Acceptance Test Driven Development

Question 5

Which of the following Step is NOT applicable while implementing TDD?

a) Requirements prioritization
b) Refactoring
c) Running Test
d) Adding Test

Answer Key for 'Test Driven Development': 1-b; 2-c; 3-a; 4-d; 5-a;

2 AGILE OVERVIEW

Question 1

What do most of the Agile methodologies have in common?

a) Focus on iterative and incremental development
b) Early feedback is key for the project success
c) Ensure transparency for the work in progress
d) All of the above

Question 2

Which of the following are not Scrum values?

a) Vision
b) Respect
c) Motivation
d) Commitment
e) Focus
f) Openness
g) Courage

Question 3

What should an Agile project do in order to communicate well?

a) Keep team-size large, to avoid stakeholders from feeling left out
b) Split the Agile project team into small, mixed-skill, self-organizing teams
c) Operate with one team of less than 10 people
d) Have separate Daily Standup meetings for the Developers and Testers

Question 4

A _____ is decided during the first half of the Sprint planning meeting and a _____ is created during the second half of the Sprint planning meeting.

a) Sprint Backlog, Collection of tasks
b) Product Backlog, Collection of tasks
c) User stories to be delivered, Sprint Backlog
d) Product Backlog, Sprint Backlog

Question 5

What does incremental delivery mean?

a) Team delivers non-functional increments in the Sprint retrospectives
b) Team deploys functional increments over the course of the project
c) Team does testing only after completing the entire development i.e. at the end of the Release
d) Team follows the same Agile process throughout the Project without any alterations

Answer Key for 'Agile Overview': 1-d; 2-a &c; 3-b&c; 4-c; 5-b;

3 AUTOMATION

Question 1

Where can automation be applied in an agile project?

a. Only in development
b. Only in testing
c. Only in deployment
d. All of the above

Question 2

Which of the following is NOT an advantage of automation in a project?

a. Reduces manual effort
b. Helps in frequent releases
c. Frees team time so that they can focus on other features
d. None of the above

Question 3

Ram is working as a QA analyst in a research project. Client has already communicated that there would be frequent enhancements to the ratings screen. To avoid testing the old features again and again, what should Ram do?

a. Automate the testing scenarios at the end of the project
b. Test all the feature manually whenever the enhancement request is sent
c. Automate the testing scenarios and keep enhancing whenever the new request is sent
d. None of the above

Question 4

JUnit is a tool used for:

a. Unit testing for Java component
b. To check the code quality
c. Unit testing for database components
d. JUnit is a UI development framework

Question 5

Which of the following can be used for code quality?

a. SONAR
b. Clear case
c. XUnit
d. QTP

Answer Key for 'Automation': 1-d; 2-d; 3-c; 4-a; 5-a;

4 REFACTORING

Question 1

Key benefits of Refactoring in Agile include:

a) Reduce maintenance cost
b) Architecture improvement without impacting software behavior
c) Increase readability and modularity of code
d) All of the above

Question 2

Refactoring is:
a) A practice to change functional behavior of the code
b) A practice of continuously improving the design of existing code
c) A exercise to increase business revenue by meeting customer requirements
d) A exercise to modify application architecture drastically to improve performance

Question 3

What is the correct sequence of steps for Database refactoring? (Concept to be tested: Database Refactoring in Agile)

a) Write Test → Apply DB refactoring → Refactor external application → Run Test
b) Write Test → Refactor external application → Run Test→ Apply DB refactoring
c) Write Test → Run Test→ Apply DB refactoring→ Refactor external application
d) Write Test → Apply DB refactoring → Run Test→ Refactor external application

Question 4

"Replace array with Object" technique belongs to which of the following Refactoring technique?

a) Composing methods
b) Moving features between Objects
c) Organizing data
d) Simplifying Conditional Expression

Question 5

'Cyclometic Complexity' is an indicator to smell the bad code. TRUE or FALSE?

a) TRUE
b) FALSE

Answer Key for 'Refactoring': 1-d; 2-b; 3-c; 4-c; 5-a;

5 AGILE PLANNING AND ESTIMATION

Question 1

Planning and Estimation in Agile projects is NOT done at which of the following stages of the project?

a) Project Initiation
b) Release Initiation
c) Project Closure
d) Sprint Planning

Question 2

An absolute number assigned to each User Story based on the complexity in Relative to other User Stories is known as:

a) Quick Function Points
b) Use Case Points
c) User Story Points
d) Cosmic Function Points

Question 3

In the Sprint Planning, the team decides on how many user stories they will be able to commit for completion in the upcoming Sprint.

a) True
b) False

Question 4

The Project level estimate will give details about:

a) Approximate staffing plan
b) Approximate end date of project
c) Approximate number of Releases/Sprints required before deployment
d) All of the above

Question 5

Which of the following is/are INCORRECT about the activities involved in Release level planning?

a) Prioritization of the User Stories is done
b) Retrospective of previous Sprint is conducted
c) Determines the objective of the Release
d) Estimation for each individual Task is performed

Answer Key for 'Agile Planning and Estimation': 1-c; 2-c; 3-a; 4-d; 5- b & d;

6 SOFT SKILLS

Question 1

How are the Agile Project Teams managed?

a) Agile project Teams are self-organized and self-managed
b) Agile Project Teams are managed by the Project Manager
c) Every Agile Project Team has a Product owner who manages the Team
d) A dedicated Scrum Master manages the Agile Team

Question 2

In Agile projects, the team members should hone their Soft Skills because

a) These skills are vital for the success of Agile projects
b) It helps the project team to eliminate waste (or at least reduce their impact) in Agile software development
c) To learn/adopt the Agile methods by having a shift in the mindset away from traditional approach
d) All of the above

Question 3

In Agile projects, the Team members are expected to be more disciplined. Why?

a) The sprints are time boxed and non-negotiable, so Team members must complete all activities on a time bound manner
b) The Team is self-organized and must work towards meeting the commitments as per Sprint Planning
c) Scrum master monitors the project on hourly basis and hence Team need to be disciplined
d) Both ‘a’ and ‘b’

Question 4

Agile Teams can resolve the conflict among themselves by discussing and questioning each other before approaching Scrum master or Agile coach.

a) TRUE
b) FALSE

Question 5

Which of the following is not considered as ‘Waste’ as per Lean principle in software development perspective?

a) Starting with more work than that can be completed within time
b) Extra functionality
c) Slow or ineffective communication
d) Updating ALM daily

Answer Key for ‘Soft Skills’: 1-a; 2-d; 3-d; 4-a; 5-d;

7 AGILE REQUIREMENTS-ARCHITECTURE-DESIGN

Question 1

In Agile projects, how are the non-functional Requirements captured?

a) As a Theme
b) As a separate User Story
c) As a Task
d) Depends upon the Product Owner

Question 2

'Certainty' and 'Feasibility' are related to which of the following techniques?

a) Keep it Simple
b) Design Pattern
c) Requirement Prioritization
d) No Big Design Up Front

Question 3

Identify the Design principle from the below options which is not related to SOLID principles?

a) Simple Responsibility Principle
b) Open Closed Principle
c) Liskov Substitution Principle
d) Interface Segregation Principle
e) Dependency Inversion Principle

Question 4

Which of the following is not an essential part for describing a Design Pattern?

a) Problem
b) Pattern Name
c) Solution
d) Benefit

Question 5

Continuous Code Refactoring and Test Driven Development helps the Agile project Team to keep the design simple.

a) True
b) False

Answer Key for 'Agile-Requirements-Architecture-Design': 1-b; 2-c; 3-a; 4-d; 5-a;

8 AGILE TESTING TECHNIQUES

Question 1

Which of the following is FALSE about Defect Management in Agile?

a) Defects are logged in a tool when identified
b) Defects are analyzed and fixed based on prioritization
c) Defects are re-tested before closure
d) All of the above
e) None of the above

Question 2

When is Integration Testing done in Agile projects?

a) Integration Testing is done once all the user stories are completed and accepted by the Product Owner
b) Integration Testing is only done during the hardening sprint of the Release
c) Integration Testing is done within every Sprint of the Release as the functionality gets developed
d) Integration Testing is done once at the mid of the Release and then at the end of the Release

Question 3

Why is Smoke Testing needed in Agile projects?

a) To ensure that the bad code is not dropped into the testing/production environment
b) To save time within the Sprint so that effort is diverted towards the development of the stories
c) To bypass system testing whenever there is a time constraint before demonstrating the incremental software
d) Smoke testing is not needed in Agile projects as it is just an additional testing activity

Question 4

Which of the following is NOT a challenge while Testing in Agile projects?

a) Identifying the Sprint for starting the automation of Test cases
b) Frequent builds breaking the existing features
c) Environment availability for Performance testing
d) Analyzing the effectiveness of automation

Question 5

In Agile, both testing and development is carried out in same Sprint duration. TRUE or FALSE?

a) TRUE
b) FALSE

Answer Key for 'Agile Testing Techniques': 1-e; 2-c; 3-a; 4-d; 5-a;

9 CONTINUOUS INTEGRATION AND ASSOICATED TOOLS

Question 1

Which of the following in NOT a stage in Continuous Integration?

a. Requirement Analysis
b. Build and Unit Testing
c. Integration Testing and Quality check
d. System Testing

Question 2

The main purpose of Continuous Integration (CI) Server is

a. To manage all the source code changes and other software artifacts
b. To stabilize and monitor coding conventions
c. To run an integration build by retrieving the source files whenever a change is committed
d. To deploy the software into the production

Question 3

Which of the following is NOT a Unit Testing tool

a. NUnit
b. JUnit
c. JTest
d. Jenkins

Question 4

Identify the right sequence of Continuous Integration activities from the below given options

a. CheckIn/CheckOut→Email Notification→Build and Packaging→Functional/Performance Testing
b. CheckIn/CheckOut→Build and Packaging → Functional/Performance Testing → Email Notification
c. Email Notification→Build and Packaging→Functional/Performance Testing→CheckIn/CheckOut
d. Build and Packaging→CheckIn/CheckOut→Functional/Performance Testing→Email Notification

Question 5

One of the basic principles of Continuous Integration is that a build should be verifiable.

a. TRUE
b. FALSE

Answer Key for 'Continuous Integration and Associated Tools': 1-a; 2-c; 3-d; 4-b; 5-a;


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