FullStack QA Lead/ Test Architect

Question 1: Multi-Select

Question: Maven vs NPM Build Tools (Select ALL that apply) Which statements correctly compare Maven and NPM in test automation context? (Select all that apply)

1. Maven uses pom.xml while NPM uses package.json for configuration

2. Both support running tests through configured scripts/plugins

3. Maven is only for Java; but NPM can be used for JavaScript & Java

4. Both support dependency management and version control

4. Both can be integrated into CI/CD pipelines

Correct Answer: Option 1,2,4,5

Option 1: Maven configures projects via XML-based pom.xml, while NPM uses JSON-based package.json

Option 2: Maven uses plugins (Surefire, Failsafe) and NPM uses script commands to execute test frameworks

Option 4: Both tools download, manage, and version-control project dependencies automatically

Option 5: Both work seamlessly with Jenkins, GitLab CI, GitHub Actions, and other CI/CD platforms

Question 2: Single Choice

Question:Which practice BEST demonstrates encapsulation in a Page Object Model implementation?

1. Making all web element locators public for easy access

2. Making locators private and exposing only behavior methods

3. Creating static methods for all page actions

4. Putting all locators in a separate properties file

Correct Answer: Option 2

Option B is the best practice because it perfectly demonstrates true encapsulation by keeping locators private and exposing only behavior methods. When locators are hidden as private fields, test scripts interact with pages through meaningful methods like login() or submitForm() instead of directly accessing elements. For example, a LoginPage class would hide locators like By.id("username") as private fields but expose a public login(String username, String password) method. This creates a clean abstraction where tests focus on what actions to perform rather than how they're implemented. If the UI changes and locators need updating, only the page class requires modification while all tests remain untouched, dramatically improving maintainability and code readability.

Question 3: Single Choice

Question: In a Maven project, where would you configure the Surefire plugin to run only tests matching a specific naming pattern?

1. In the dependencies section

2. In the build/plugins section of pom.xml

3. In the properties section

4. In a separate surefire.xml file

5. Hardcoding environment URLs directly in test classes for easier maintenance

Correct Answer: Option 2

The Surefire plugin must be configured in the build/plugins section of pom.xml because this is where Maven manages all build-related plugins and their configurations. The plugins section allows you to specify plugin details, execution goals, and custom configurations like test naming patterns using the <includes> tag. For example, you would add the maven-surefire-plugin within <build><plugins> and configure it to run only tests matching patterns like **/*Test.java or **/*IT.java. This is the standard Maven convention for configuring any build plugin behavior, and the dependencies section is only for project libraries, the properties section is for variables, and Maven doesn't use separate XML files for individual plugin configurations.

Question 4: Multi-Select

Question: Selenium Best Practices **(Select ALL that apply)** Which are recommended best practices for Selenium test automation?

1. Use unique IDs for element identification when available

2. Add Thread.sleep() for all synchronization needs

3. Implement explicit waits for dynamic elements

4. Take screenshots on test failures

Correct Answer: Option 1,3,4

Explanation: IDs, explicit waits, and failure screenshots are best practices. Thread.sleep() should be avoided as it's unreliable and slows tests unnecessarily.

Question 5: Fill in the blanks

The command git _____ is used to download changes from a remote repository without automatically merging them into your current branch.

```
git fetch
```

Correct Answer Explanation

git fetch downloads updates from remote but doesn't merge, allowing you to review changes before integrating them with git merge.

Question 6: Single Choice

Question: Which command would you use to view logs from a running container?

1. docker inspect

2. docker logs <container_id>

3. docker exec

4. docker stats

Correct Answer: Option 2

Explanation: docker logs displays stdout/stderr output from a container, essential for debugging test execution in containerized environments.
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Question 7: Single Choice

Question: What does "latency" measure in performance testing?

1. Total number of requests

2. Time from sending request to receiving first byte of response

3. Total bandwidth consumed

4. Number of concurrent users

Correct Answer : Option 2

Explanation: Latency specifically measures the delay before data transfer begins, representing network and server processing time before the first response byte.

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Question: Which Playwright assertion automatically retries until the condition is met or timeout occurs?

1. expect(locator).toHaveText()

2. assertEqual()

3. assert()

4. verify()

Correct Answer: Option 1

Explanation: Playwright's expect assertions have built-in auto-waiting and retry mechanisms, making tests more reliable by automatically polling until conditions are met.

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Question 9: Single Choice

Question: What is the primary purpose of MCP servers in AI agent architectures?

1. To host LLM models locally

2. To provide standardized interfaces for AI agents to access external tools

3. To manage agent-to-agent communication

4. To cache AI model responses

Correct Answer: Option 2

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Guidelines & Learning Resources
Prepare yourself to success

⚠️ Important Exam Guidelines

🪑 Sit in a **quiet place** with a plain background and **good lighting** to ensure a **professional environment**

📶 Ensure **stable internet connection** throughout the exam to avoid disruptions

📷 Keep your **camera ON** at all times during the assessment for proctoring purposes

🚫 Do **NOT switch tabs or windows** during the exam - this may result in automatic disqualification

🎓 Learning Resources

Need guidance to clear the assessment with a great score? Check out the systematic learning resources below to learn from scratch.

https://courses.rahulshettyacademy.com/p/java-become-full-stack-qa-automation-expert

https://courses.rahulshettyacademy.com/p/gen-al-al-agents-for-software-testing

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🌟 All the Best! 🌟
You've prepared well, and we believe in your abilities!
Stay calm, focused, and confident during the assessment.
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