**Quiz 1: CI/CD**

1. What does CI/CD stand for, and what does it represent in software development?

A) Continuous Improvement, Continuous Deployment

B) Continuous Integration, Continuous Delivery/Deployment

C) Continuous Implementation, Continuous Deployment

D) Continuous Inspection, Continuous Deployment

**Correct Answer: B**

2. What is one of the benefits of implementing CI/CD in software development?

A) Slower development cycles

B) Higher risk of errors

C) Improved code quality

D) Longer testing phases

**Correct Answer: C**

3. In a typical CI/CD pipeline, what are the four main stages that code changes go through?

A) Code, Build, Test, Analyze

B) Design, Develop, Test, Deploy

C) Code, Build, Test, Deploy

D) Plan, Code, Test, Deploy

**Correct Answer: C**

4. What is Jenkins?

A) A version control system

B) An open-source automation server

C) A cloud computing platform

D) A containerization tool

**Correct Answer: B**

5. What is a key feature of Jenkins?

A) It supports only one version control system.

B) It has no support for plugins.

C) It is not extensible.

D) It has a large plugin ecosystem.

**Correct Answer: D**

6. What is the role of Jenkins agents in the Jenkins architecture?

A) Agents are used to perform security scans.

B) Agents are responsible for managing Jenkins users.

C) Agents execute build and test tasks on behalf of the Jenkins master.

D) Agents store the Jenkins configuration.

**Correct Answer: C**

7. What is the first step when setting up Jenkins?

A) Installing Jenkins plugins

B) Configuring the initial admin password

C) Creating a new Jenkins job

D) Configuring a webhook

**Correct Answer: B**

8. How can you extend Jenkins' functionality?

A) By using Jenkins agents

B) By installing and managing plugins

C) By creating new Jenkins masters

D) By setting up external monitoring tools

**Correct Answer: B**

9. Which stage of a CI/CD pipeline is responsible for configuring deployment steps?

A) Build

B) Test

C) Deploy

D) Code

**Correct Answer: C**

10. How can you manually trigger a Jenkins job?

A) By setting up a webhook

B) By using a Jenkins agent

C) By clicking "Build Now" in the Jenkins job

D) By editing the Jenkinsfile

**Correct Answer: C**

11. What is the Jenkins dashboard used for?

A) To create new Jenkins jobs

B) To configure Jenkins agents

C) To monitor the progress and results of pipelines

D) To install plugins

**Correct Answer: C**

12. In the context of CI/CD, what does "CD" stand for?

A) Continuous Deployment

B) Continuous Design

C) Continuous Documentation

D) Continuous Development

**Correct Answer: A**

13. What does a Jenkins job primarily consist of?

A) Only a build stage

B) Code and deploy stages

C) Configuration and a set of build and test steps

D) Only a test stage

**Correct Answer: C**

14. Which Jenkins feature allows you to connect it to version control systems like Git?

A) Jenkins Pipeline

B) Jenkins Agent

C) Jenkins Plugin

D) Jenkins Job DSL

**Correct Answer: C**

15. What type of Jenkins job is used for defining a series of build, test, and deployment tasks?

A) Freestyle Project

B) Maven Project

C) Jenkins Pipeline

D) Git Integration

**Correct Answer: C**

16. Which Jenkins component is responsible for executing build and test tasks?

A) Jenkins Master

B) Jenkins Agent

C) Jenkins Plugin

D) Jenkins Pipeline

**Correct Answer: B**

17. In Jenkins, what is the purpose of a webhook?

A) To manually trigger Jenkins jobs

B) To monitor Jenkins agents

C) To notify Jenkins of code changes in a version control system

D) To install Jenkins plugins

**Correct Answer: C**

18. What is the primary goal of a CI/CD pipeline?

A) To minimize the use of automation

B) To reduce the speed of software delivery

C) To automate the building, testing, and deployment of code changes

D) To increase manual intervention in deployments

**Correct Answer: C**

19. Which Jenkins feature allows you to define the entire deployment pipeline in code?

A) Jenkins Agent

B) Jenkins Pipeline

C) Jenkins Master

D) Jenkins Job DSL

**Correct Answer: B**

20. What does Jenkins use to connect to external systems and tools to extend its functionality?

A) Jenkins Agents

B) Jenkins Jobs

C) Jenkins Plugins

D) Jenkins Pipelines

**Correct Answer: C**