

📖 EASY (10 Questions)

Q1. What is the primary purpose of a Version Control System like Git?

- A. To compile source code
 - B. To track and manage changes in files
 - C. To deploy applications automatically
 - D. To manage databases
-

Q2. Git is best described as:

- A. Centralized version control system
 - B. Distributed version control system
 - C. Cloud-based IDE
 - D. Build automation tool
-

Q3. Which command initializes a new Git repository?

- A. git start
 - B. git init
 - C. git new
 - D. git begin
-

Q4. Which file stores Git configuration for a specific repository?

- A. .gitignore
 - B. .git/config
 - C. config.txt
 - D. git.conf
-

Q5. GitHub is primarily a:

- A. Local repository manager
- B. Continuous integration server

- C. Remote code hosting platform
 - D. Programming language
-

Q6. Which command shows the current state of the working directory?

- A. git log
 - B. git diff
 - C. git status
 - D. git branch
-

Q7. Which command stages files for commit?

- A. git push
 - B. git add
 - C. git clone
 - D. git pull
-

Q8. The `.gitignore` file is used to:

- A. Ignore commits
 - B. Ignore users
 - C. Ignore specific files from tracking
 - D. Ignore branches
-

Q9. Jenkins is mainly used for:

- A. Version control
 - B. Configuration management
 - C. Continuous Integration and Delivery
 - D. Cloud provisioning
-

Q10. A Jenkins job is best described as:

- A. A Git repository
- B. A build or automation task

- C. A deployment server
 - D. A container
-

☐ MEDIUM (15 Questions)

Q11. Which Git area holds files after `git add` but before commit?

- A. Working directory
 - B. Remote repository
 - C. Staging area
 - D. Object database
-

Q12. What happens when `git clone` is executed?

- A. A repository is initialized
 - B. A local copy of a remote repository is created
 - C. Changes are pushed to GitHub
 - D. Files are staged
-

Q13. Which Git object stores metadata and references to trees?

- A. Blob
 - B. Tree
 - C. Commit
 - D. Tag
-

Q14. Why is command-line Git preferred in professional workflows?

- A. It is graphical
 - B. It supports automation and scripting
 - C. It avoids merge conflicts
 - D. It works only online
-

Q15. Which step comes immediately after modifying files in a basic Git workflow?

- A. git push
 - B. git pull
 - C. git add
 - D. git clone
-

Q16. Setting user name and email in Git is important because:

- A. It encrypts commits
 - B. It identifies the commit author
 - C. It connects to GitHub
 - D. It enables branching
-

Q17. Which command publishes local commits to a remote repository?

- A. git fetch
 - B. git merge
 - C. git push
 - D. git pull
-

Q18. What is the default branch name in modern Git versions?

- A. master
 - B. trunk
 - C. main
 - D. root
-

Q19. Jenkins uses which language/domain for pipeline definitions?

- A. YAML
 - B. XML
 - C. Groovy
 - D. JSON
-

Q20. Which Jenkins component manages plugin installation?

- A. Executor
 - B. Master/Controller
 - C. Agent
 - D. Workspace
-

Q21. A Jenkins pipeline is best described as:

- A. A shell script
 - B. A sequence of automated CI/CD steps
 - C. A Git branch
 - D. A container image
-

Q22. What triggers Jenkins jobs most commonly in Git-based workflows?

- A. System reboot
 - B. Code commit or push
 - C. User login
 - D. Plugin update
-

Q23. Which Git command retrieves changes without merging?

- A. git pull
 - B. git fetch
 - C. git push
 - D. git commit
-

Q24. What is the role of Jenkins agents?

- A. Host Git repositories
 - B. Execute build jobs
 - C. Store pipeline scripts
 - D. Manage users
-

Q25. Which Jenkins feature visualizes pipeline stages?

- A. Blue Ocean
 - B. GitHub webhook
 - C. Freestyle project
 - D. Node executor
-

HARD (15 Questions)

Q26. Which Git concept enables multiple independent lines of development?

- A. Tags
 - B. Commits
 - C. Branches
 - D. Blobs
-

Q27. In Git architecture, the `.git` directory primarily contains:

- A. Source code
 - B. Build artifacts
 - C. Repository metadata and objects
 - D. Executables
-

Q28. A detached HEAD state occurs when:

- A. HEAD points to a branch
 - B. HEAD points directly to a commit
 - C. Repository is corrupted
 - D. No commits exist
-

Q29. In a collaborative GitHub workflow, pull requests are used to:

- A. Push code forcefully
- B. Review and merge changes

- C. Clone repositories
 - D. Delete branches
-

Q30. Why is atomic commit considered a best practice?

- A. Improves performance
 - B. Simplifies rollback and review
 - C. Avoids conflicts completely
 - D. Encrypts changes
-

Q31. Jenkins follows which architectural model?

- A. Peer-to-peer
 - B. Client-server (controller-agent)
 - C. Monolithic
 - D. Serverless
-

Q32. In Jenkins CI/CD, Continuous Integration primarily focuses on:

- A. Infrastructure provisioning
 - B. Frequent code integration and testing
 - C. Manual deployments
 - D. Monitoring
-

Q33. What is the main advantage of Jenkins declarative pipelines?

- A. They require no plugins
 - B. They are simpler and more structured
 - C. They run faster
 - D. They eliminate agents
-

Q34. Which Jenkins stage would typically include unit testing?

- A. Build
- B. Deploy

- C. Monitor
 - D. Provision
-

Q35. Webhooks between GitHub and Jenkins enable:

- A. Manual polling
 - B. Event-driven pipeline execution
 - C. Local repository cloning
 - D. User authentication
-

Q36. In CI/CD, a failed pipeline should ideally:

- A. Continue deployment
 - B. Be ignored
 - C. Stop and notify stakeholders
 - D. Delete repository
-

Q37. Jenkins pipeline as code improves:

- A. UI responsiveness
 - B. Versioning and reproducibility
 - C. Hardware utilization
 - D. Network bandwidth
-

Q38. Which Git command rewrites commit history and must be used cautiously?

- A. git merge
 - B. git rebase
 - C. git fetch
 - D. git tag
-

Q39. In enterprise CI/CD, Jenkins scalability is achieved by:

- A. Increasing repository size
- B. Adding more agents/nodes

- C. Disabling pipelines
 - D. Using only master node
-

Q40. The primary risk of force-pushing (`git push --force`) is:

- A. Slower performance
- B. Overwriting shared history
- C. Breaking Jenkins builds
- D. Deleting branches automatically