

# QUESTION EASY (10 Questions)

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## 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
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## Q2. Git is best described as:

- A. Centralized version control system
  - B. Distributed version control system
  - C. Cloud-based IDE
  - D. Build automation tool
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## Q3. Which command initializes a new Git repository?

- A. git start
  - B. git init
  - C. git new
  - D. git begin
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## Q4. Which file stores Git configuration for a specific repository?

- A. .gitignore
  - B. .git/config
  - C. config.txt
  - D. git.conf
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## Q5. GitHub is primarily a:

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

- C. Remote code hosting platform
  - D. Programming language
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**Q6. Which command shows the current state of the working directory?**

- A. git log
  - B. git diff
  - C. git status
  - D. git branch
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**Q7. Which command stages files for commit?**

- A. git push
  - B. git add
  - C. git clone
  - D. git pull
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**Q8. The `.gitignore` file is used to:**

- A. Ignore commits
  - B. Ignore users
  - C. Ignore specific files from tracking
  - D. Ignore branches
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**Q9. Jenkins is mainly used for:**

- A. Version control
  - B. Configuration management
  - C. Continuous Integration and Delivery
  - D. Cloud provisioning
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**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
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## MEDIUM (15 Questions)

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

- A. Working directory
  - B. Remote repository
  - C. Staging area
  - D. Object database
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**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
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**Q13. Which Git object stores metadata and references to trees?**

- A. Blob
  - B. Tree
  - C. Commit
  - D. Tag
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**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
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**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
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**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
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**Q17. Which command publishes local commits to a remote repository?**

- A. git fetch
  - B. git merge
  - C. git push
  - D. git pull
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**Q18. What is the default branch name in modern Git versions?**

- A. master
  - B. trunk
  - C. main
  - D. root
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**Q19. Jenkins uses which language/domain for pipeline definitions?**

- A. YAML
  - B. XML
  - C. Groovy
  - D. JSON
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**Q20. Which Jenkins component manages plugin installation?**

- A. Executor
  - B. Master/Controller
  - C. Agent
  - D. Workspace
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**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
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**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
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**Q23. Which Git command retrieves changes without merging?**

- A. git pull
  - B. git fetch
  - C. git push
  - D. git commit
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**Q24. What is the role of Jenkins agents?**

- A. Host Git repositories
  - B. Execute build jobs
  - C. Store pipeline scripts
  - D. Manage users
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**Q25. Which Jenkins feature visualizes pipeline stages?**

- A. Blue Ocean
  - B. GitHub webhook
  - C. Freestyle project
  - D. Node executor
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## **HARD (15 Questions)**

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

- A. Tags
  - B. Commits
  - C. Branches
  - D. Blobs
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**Q27. In Git architecture, the `.git` directory primarily contains:**

- A. Source code
  - B. Build artifacts
  - C. Repository metadata and objects
  - D. Executables
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**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
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**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
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**Q30. Why is atomic commit considered a best practice?**

- A. Improves performance
  - B. Simplifies rollback and review
  - C. Avoids conflicts completely
  - D. Encrypts changes
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**Q31. Jenkins follows which architectural model?**

- A. Peer-to-peer
  - B. Client-server (controller-agent)
  - C. Monolithic
  - D. Serverless
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**Q32. In Jenkins CI/CD, Continuous Integration primarily focuses on:**

- A. Infrastructure provisioning
  - B. Frequent code integration and testing
  - C. Manual deployments
  - D. Monitoring
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**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
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**Q34. Which Jenkins stage would typically include unit testing?**

- A. Build
- B. Deploy

- C. Monitor
  - D. Provision
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**Q35. Webhooks between GitHub and Jenkins enable:**

- A. Manual polling
  - B. Event-driven pipeline execution
  - C. Local repository cloning
  - D. User authentication
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**Q36. In CI/CD, a failed pipeline should ideally:**

- A. Continue deployment
  - B. Be ignored
  - C. Stop and notify stakeholders
  - D. Delete repository
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**Q37. Jenkins pipeline as code improves:**

- A. UI responsiveness
  - B. Versioning and reproducibility
  - C. Hardware utilization
  - D. Network bandwidth
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**Q38. Which Git command rewrites commit history and must be used cautiously?**

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