

1. Git command that sends local commits to a remote?
(A) git sendit (B) git push (C) git pull (D) git send (E) git upload
2. True or False: In the recommended ADR format, the Context section should describe forces in a value-neutral way rather than arguing for a preferred option.
(A) True (B) False
3. When an AI coding agent adds a new dependency to your project, what should you do?
(A) Reject it because 3rd party dependencies are security nightmares
(B) Verify the package was correctly added to your pyproject.toml and uv.lock files
(C) Reject it because engineers need to decide their dependencies, not AI
(D) Accept it because it is impossible for an engineer to know every Python library in 2026
(E) Verify the package exists and is appropriate for your project
4. Command to list branches (and see which one you are on)?
(A) git heads (B) git branches (C) git show (D) git list (E) git branch
5. The git subcommand that stages files is what?
(A) add (B) commit (C) push (D) restore (E) stage
6. In a uv project, what is the purpose of uv.lock?
(A) It pins the exact versions for the direct dependencies of a project
(B) Its primary purpose is to pin the exact Python version a project depends on.
(C) It stores compiled wheels so installs do not require downloads.
(D) It pins the exact versions for every dependency in a project.
7. If HEAD points directly to a commit (not a branch), the state is called?
(A) rebased (B) detached (C) stashed (D) orphaned
8. Conceptually, what is a branch in git?
(A) A unique history of commits separate from all other branches.
(B) A pointer with a name to a specific commit.
(C) A folder that contains a copy of the repository files.
(D) A set of commits that is stored separately from the main history.
9. When does merging branch A into branch B result in a fast-forward merge?
(A) When there are no conflicts that must be resolved manually.
(B) When B is an ancestor of A, so B can just move forward.
(C) When A and B both added commits since they diverged.
(D) When A has fewer commits in its history than B.
10. When local and remote haven't diverged, git pull usually does what type of merge?
(A) octopus (B) merge commit (C) squash (D) rebase (E) fast-forward
11. Conventional name for the primary remote in a git repository?
(A) main (B) source (C) upstream (D) origin (E) master
12. Command in git that downloads commits without changing working files?
(A) git sync (B) git pull (C) git fetch (D) git push (E) git merge
13. Which uv command is used to ensure the environment's installed packages match pinned versions?
(A) uv sync (B) uv add (C) uv run (D) uv pull (E) uv fetch
14. Git command that combines fetch and merge?
(A) git pull (B) git switch (C) git fm (D) git push (E) git sync

15. Git operation that temporarily shelves changes without committing them?
(A) bg (B) stash (C) pause (D) pop (E) push
16. In an LLM, a context window limit most directly affects model output because it constrains what the model can:
(A) Store permanently in memory between sessions.
(B) Compute per token using the CPU rather than the GPU.
(C) Search online for recent facts while responding.
(D) Use as input when predicting the next token.
17. In the ACM Code of Ethics, what is explicitly prohibited regarding ethical concerns raised by team members?
(A) Raising ethical concerns at all so that management can enforce ethics.
(B) Assigning someone a task that is within their competencies and is ethical.
(C) Punishing someone for expressing ethical concerns about a project.
(D) Punishing someone who has had ethical concerns raised against them without a fair investigation.
18. In a software project, what is a “regression”?
(A) A requirement is rewritten to be more specific.
(B) A previously working behavior breaks after a change.
(C) A test fails because the environment is misconfigured.
(D) A new feature works but is slower than expected.
19. What data structure is able to represent a relatively complex git commit history?
(A) RB Tree (B) Cyclical Graph (C) Binary Tree (D) Singly Linked List (E) Directed Acyclic Graph
20. In a developer agent workflow, “context engineering” most directly refers to:
(A) Fine-tuning a model’s training by providing examples of context and expected results.
(B) Replacing source control with a chat transcript of all code changes.
(C) Training a new foundation model from scratch for a specific codebase.
(D) Deliberately selecting and structuring what information goes into context.
21. In a commit graph, what does it mean when a commit has two parents?
(A) It is a fast-forward update that moved a branch pointer.
(B) It is an amended commit that replaced its parent.
(C) It is a merge commit combining two branch histories.
(D) It is a revert commit that undid a previous change.
22. True or False: In AI code review, you are encouraged to accept code you do not understand as long as passes automated tests and works with manual acceptance testing.
(A) False (B) True
23. You want to test a specific segment of code: `if user.is_admin: ... else: ...`. What is the best approach?
(A) Write one test and assume the other branch works.
(B) Only test the branch that the public relies on in production.
(C) Write two tests with inputs that hit each branch.
(D) Only test the branch that uses elevated permissions and is a security concern.
24. In git, what does “HEAD” usually represent?
(A) The branch you are currently on.
(B) A record of uncommitted changes in your working directory.
(C) The default branch name for every repository.
(D) A list of all branches on the remote server.
25. True or False: A good way to reduce risk from AI-generated code is to avoid using any automated tools and rely only on human reviewers.
(A) True (B) False
26. Git command that copies a repo and sets up origin automatically?
(A) git copy (B) git clone (C) git pull (D) git init (E) git fork

27. True or False: A known AI-specific pitfall is deleting or skipping failing tests instead of fixing the underlying issue.
(A) False (B) True
28. What is the best example of a non-functional (“cross-functional”) requirement?
(A) Users can add items to a shopping cart.
(B) Admins can create new discount codes across product categories.
(C) Customers can make a request across multiple layers of the stack.
(D) Payment must clear within a second.
29. AI can enhance learning or help you avoid learning depending on how you use it. Which prompt best reflects “curiosity” rather than “laziness”?
(A) I am unsure I understood this paragraph. What is the correct answer to the following question?
(B) Can you summarize this assigned reading for me?
(C) Rewrite my worksheet response so I sound smarter but still like a junior software engineer in college.
(D) I am unsure I understood this paragraph. Ask me questions to check my understanding.
30. In modern AI agents, what does “tool calling” mean?
(A) The model installs dependencies and upgrades packages automatically.
(B) The model opens a terminal and executes commands without any wrapper.
(C) The model rewrites its own weights during the conversation to gain new skills.
(D) The model produces a request for an external function to run.
31. After you delete a branch name locally (e.g., `git branch -d wip`), what happens to the commits that were on it?
(A) The branch name is deleted, but commits are unchanged.
(B) Those commits are automatically squashed into the main branch.
(C) Git converts those commits into untracked working directory files.
(D) The commits from that branch are deleted.
32. What is the best example of a functional requirement?
(A) Users can reset their password via email.
(B) The service should have 99.9% uptime.
(C) Sensitive data must be encrypted.
(D) The system should respond within 200ms at p95.
33. Which is a strong reason to invest in automated tests rather than relying only on manual testing?
(A) They eliminate the need for code reviews.
(B) They remove the need for logging in production.
(C) They guarantee the product meets all user needs.
(D) They quickly catch unintended breakage after changes.
34. The git subcommand that shows the repo’s current state is what?
(A) commit (B) ls (C) history (D) state (E) status
35. True or False: ADR consequences often become context for subsequent ADRs as the project evolves.
(A) False (B) True
36. Which statement best describes what an LLM does during generation in today’s systems?
(A) It repeatedly predicts next tokens from context until a stop condition.
(B) It executes code that searches the internet for supporting facts.
(C) It retrieves the correct answer from a database of past conversations.
(D) It compiles the prompt into a program that is type-check before responding.
37. In an AI coding assistant, what is the best distinction between a large language *model* and an inference *engine*?
(A) The model is the API layer; the engine is the chat user interface.
(B) The model schedules tools; the engine decides which tools are safe to run.
(C) The model is the prompt template; the engine stores long-term memory.
(D) The model is the trained weights; the engine runs them to produce tokens.
38. In a modern uv-managed project, which file declares the project’s direct dependencies?
(A) requirements.txt (B) pyproject.toml (C) README.md (D) .python-version (E) uv.lock