**SCENARIO-BASED MCQs – Git & GitHub Workflow**

**1️⃣ You cloned a repo, created a new file, but git status shows nothing. Why?**

A. You forgot to run git pull  
B. File is in .gitignore ✅  
C. Git is corrupted  
D. Repo is in detached HEAD

**Explanation:** If a new file isn’t showing, it’s likely ignored via .gitignore.

**2️⃣ You committed changes locally but git push origin main says “Everything up-to-date”.**

A. Your commit didn’t save  
B. You are on a different branch ✅  
C. Remote is down  
D. You need --force

**Explanation:** You probably committed on another branch, not main.

**3️⃣ You try to push, but get: Updates were rejected because the remote contains work that you do not have locally. What should you do?**

A. Force push  
B. Delete remote branch  
C. git pull --rebase ✅  
D. git reset --hard

**Explanation:** Rebase or merge remote changes before pushing.

**4️⃣ After merging a feature branch, you see duplicate code. What likely happened?**

A. Merge conflict was ignored ✅  
B. Git bug  
C. Branch was deleted too early  
D. Rebase went wrong

**Explanation:** Developer resolved conflicts incorrectly and duplicated code.

**5️⃣ You want to test work on a PR from someone else. What's the correct way?**

A. Edit directly on their branch  
B. Pull their branch: git fetch origin pull/ID/head:new-branch ✅  
C. Clone repo again  
D. Use git cherry-pick main

**Explanation:** GitHub allows fetching PRs using this syntax.

**6️⃣ Team members accidentally push directly to main. How to enforce workflow?**

A. Panic  
B. Delete main branch  
C. Enable branch protection rules ✅  
D. Rename the branch

**Explanation:** Branch protection prevents direct pushes and enforces PRs.

**7️⃣ You run git pull and see: CONFLICT (content): Merge conflict in file.java. Best next step?**

A. Abort and force push  
B. Manually edit file ✅  
C. Delete file  
D. Use stash

**Explanation:** Conflicts must be manually resolved, then commit.

**8️⃣ A teammate force-pushed to main. Your history is broken. What do you do?**

A. git pull  
B. git fetch then git reset --hard origin/main ✅  
C. Re-clone the repo  
D. Cherry-pick commits

**Explanation:** Force-reset to remote to sync with the new history.

**9️⃣ You accidentally committed sensitive credentials. Best action?**

A. git revert  
B. git rm and commit  
C. git filter-repo or BFG to remove from history ✅  
D. Ignore, it's fine

**Explanation:** Removing from history is required, not just revert.

**🔟 CI/CD pipeline fails on PR but works locally. Why?**

A. GitHub Actions is broken  
B. Missing dependencies in pipeline ✅  
C. Git bug  
D. Branch name issue

**Explanation:** Local env ≠ CI env. Missing env vars, tools, or settings.

**✅ Want deeper simulation?**

I can build:  
✅ Full workflow exercise (clone → branch → commit → PR → merge)  
✅ Conflict resolution scenario  
✅ Rebasing vs merging cases  
✅ CI/CD + GitHub Actions cases  
✅ MCQs per role (developer / lead / DevOps)