Git Examination

Total Marks: 100
Submission Deadline: Same Day

Instructions

- Complete all sections of the exam.
- Document your answers clearly, including screenshots where applicable.
- Save the document as: `[Student Name] - Git - [Date] - Exam 01`.

Section A: Multiple Choice Questions (20 marks)

Instructions: Circle the correct answer.

1. What command is used to initialize a new Git repository?
   a) `git start`
   b) `git init`
   c) `git new`
   d) `git create`

2. Which command is used to stage changes for the next commit?
   a) `git commit`
   b) `git add`
   c) `git stage`
   d) `git save`

3. What does the `git clone` command do?
   a) Creates a new repository.
   b) Copies an existing repository.
   c) Merges two repositories.
   d) Deletes a repository.

4. What is a branch in Git?
   a) A copy of the repository
   b) A parallel version of the repository
   c) A backup of the repository
   d) A permanent snapshot of the repository

5. Which command is used to view the commit history?
   a) `git log`
   b) `git history`
   c) `git commits`
   d) `git show`

Section B: Short Answer Questions (30 marks)

1. Explain the difference between `git pull` and `git fetch`. (5 marks)
   Answer:

2. What is a merge conflict, and how can it be resolved? (5 marks)
   Answer:

3. Describe the purpose of the `.gitignore` file. (5 marks)
   Answer:

4. What is the function of the `git rebase` command? Provide a scenario where it would be used. (5 marks)
   Answer:

5. How can you revert a commit that has already been pushed to a remote repository? (5 marks)
   Answer:

Section C: Practical Questions (50 marks)

1. **Create a Repository**:
   Initialize a new Git repository in a directory named `my_project`.
   Commands Used:

2. **Make Changes**:
   Create a file named `README.md`, add some content to it, and commit the changes.
   Commands Used:

3. **Branching**:
   Create a new branch named `feature-1`, switch to it, and make a change in the `README.md` file. Commit your changes.
   Commands Used:

4. **Merge**:
   Switch back to the main branch and merge `feature-1` into it. Resolve any conflicts that may arise.
   Commands Used:

5. **Remote Repository**:
   Assume you have a remote repository URL. Add the remote repository, push your changes, and verify that the changes have been uploaded.
   Commands Used:

Submission

Ensure that all sections are complete, and all screenshots are included. Submit your document by the end of the exam.

Good luck!