

**Drasil Future Contributors' Test**  
**McMaster University**

Faculty of Engineering, Department of Computing and Software

Future Drasil Contributors, **Version 1**

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DURATION OF TEST: 1.5 hours - 2.0 hours (recommended)

MCMASTER UNIVERSITY TEST

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**Please CLEARLY print:**

NAME:

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This test paper includes 10 pages and 22 questions. You are responsible for ensuring that your copy of the test paper is complete. Bring any discrepancy to the attention of the person administering this test.

1-17		17
18-22		10
Total		27

**Question 1 [1 mark]** What command is used to create a local version of a remote repository?

- A. `git copy <link to repo>`
- B. `git clone <link to repo>`
- C. `clone <link to repo>`
- D. `copy <link to repo>`

Explain your answer here.

**Question 2 [1 mark]** The `git status` command displays:

- A. verified status of all repo files
- B. list of last 5 commits to the repo
- C. paths with differences between current state of repo and last commit
- D. changes made to files after last commit

Explain your answer here.

**Question 3 [1 mark]** If you are a Windows OS user working with Git Bash App, always run the command each time you open an instance of git bash:

- A. `chcp.com 65001`
- B. `set encoding=utf-8`
- C. `chcp 65001`
- D. A. or C.

Explain your answer here.

**Question 4 [1 mark]** What is the correct order of the following `git` commands?

- A. `git push`, `git add`, `git clone`, `git commit`
- B. `git add`, `git clone`, `git push`, `git commit`
- C. `git clone`, `git add`, `git push`, `git commit`
- D. `git clone`, `git add`, `git commit`, `git push`

Explain your answer here.

**Question 5 [1 mark]** Which of the below phrases can you use to link a relevant issue to a pull request on GitHub, without closing the issue once the PR is merged? (`#HASH` is the issue hash `#`)

- A. closes `#HASH`
- B. contributes to `#HASH`

Explain your answer here.

**Question 6 [1 mark]** The preferred coding style describes how lines should not be more than --- characters wide.

- A. 60
- B. 90
- C. 80
- D. 70

Explain your answer here.

**Question 7 [1 mark]** When making pull requests involving changes to multiple files (e.g. Haskell scripts and stable folder files), remember to:

- A. use multiple `git add` to stage all changed files before doing a single commit
- B. update the stable files first and push them, then repeat with the scripts using `git add`
- C. only update all scripts in one commit using multiple `git add`
- D. only update all changed 'stable' folder files in one commit using multiple `git add`

Explain your answer here.

**Question 8 [1 mark]** The `git branch` command:

- A. shows the items under your current branch on your local repo
- B. shows a list of all your current branches on your local repo
- C. shows branches dependent on your current branch on your local repo
- D. shows a list of all current branches on the remote repo

Explain your answer here.

**Question 9 [1 mark]** When closing an issue, please provide:

- A. Rationale
- B. Relevant Links to other related issues
- C. Linked Pull Requests
- D. Any or all of the above

Explain your answer here.

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**Question 10 [1 mark]** To **only** build the 2D Rigid Body Physics Library example (gamephysics\_diff) using the Drasil framework, run the command:

- A. `setup gamephysics_diff`
- B. `make gamephysics_diff`
- C. `stack exec gamephysics_diff`
- D. `make`

Explain your answer here.

**Question 11 [1 mark]** The `git pull` command is used to:

- A. sync your local version with remote version of the repo
- B. displays changes made to the remote version of the repo
- C. sync remote version with your local version of the repo
- D. updates the remote repo with other people's changes

Explain your answer here.

**Question 12 [1 mark]** To run the Glass-BR example (glassbr) using the Drasil framework (assume that the example has already been built), run the command:

- A. `make glassbr`
- B. `exec glassbr`
- C. `stack glassbr`
- D. `stack exec glassbr`

Explain your answer here.

**Question 13 [1 mark]** What is the difference between a remote branch and a local branch?

- A. a local branch is stored on a server; a remote branch is stored on your computer
- B. a remote branch is stored on a server; a local branch is stored on your computer
- C. both remote and local branches are stored on a server
- D. both remote and local branches are stored on your computer

Explain your answer here.

**Question 14 [1 mark]** What is origin?

- A. the latest branch created
- B. a basic template branch
- C. the master branch
- D. none of the above

Explain your answer here.

**Question 15 [1 mark]** What is HEAD?

- A. the latest commit in your current branch
- B. the base/master branch of your remote repo
- C. the active item referenced by your current repo
- D. A. and C.

Explain your answer here.

**Question 16 [1 mark]** Which branch are you pulling from when you execute the following commands:

```
git branch
git switch master
git switch sample
git pull
```

- A. master
- B. sample
- C. both master and sample
- D. neither master nor sample

Explain your answer here.

**Question 17 [1 mark]** Suppose that you have created a new branch on your local repo **only**. Which of the following commands would you use to push your new branch onto the remote repo?

- A. `git push --set-upstream <new branch name>`
- B. `git push`
- C. `git push <new branch name>`
- D. `git push --set-upstream origin <new branch name>`
- E. none of the above

Explain your answer here.

**Question 18 [2 marks]** Pretend that you have made a commit on your local repo that you would like to undo. Describe the process that you would use to undo the commit if (choose one to answer):

- A. your commit is only on your local repo
- B. your commit has also been pushed to the remote repo

Be sure to include any commands that you use to accomplish this task.

Answer here (please indicate which option you chose).



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**Question 19 [2 marks]** When creating a new issue on GitHub, describe two tips to follow that help to ensure that the new issue includes enough information (context).

Answer here.

**Question 20 [2 marks]** Explain the concept of cherry-picking in GitHub. Be sure to include what command(s) and information you would use to accomplish it.

Answer here.

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**Question 21 [2 marks]** Describe Drasil (what is it, what does it do), and discuss its main goals.

Answer here.

**Question 22 [2 marks]** Imagine that you have made changes to some files in the Drasil code on your local repository. Describe the process that you would take to update the remote repository for Drasil with your changes. List any commands that you would use here as well.

Answer here.