Testing, GitHub, and Open Source

TOTAL POINTS 10

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1. Which of the following software licenses reserves the fewest rights for the creator of the software? 1 point

   ○ Artistic-2.0

   ○ The Apple iTunes EULA

   ● The deal that Faust makes with Mephistopheles

   ○ MIT

   ○ GPL

   ○ CC0

2. Which of the following are good reasons for open sourcing your software? 1 point

   ☑ The more people that are able to view and submit changes to the code, the more likely that the code will contain fewer bugs.

   ☑ Open source licensing ensures that there are no limits to how others can use your software.

   ☑ Publishing open source software is a meaningful way to contribute to the community of any programming language.

   ☑ The chance that you'll make money from software you write is so small that you might as well just give it away for free.

3. How might incorporating testing into your R package have implications for code design? 1 point

   ○ giving your functions similar sounding names makes it easier to setup a testing framework`

   ● dividing your code into smaller functions allows you to test individual pieces more effectively

   ○ a testing framework may affect the indenting of your code

○ a few large functions makes testing run faster

4. When a test fails in a call to expect_that(), what happens?   1 point

○ A warning is given

○ An error is thrown

○ The expect_that() function returns NULL

◉ The expect_that() function returns FALSE

5. What does the is_a() function do in the context of testthat?   1 point

○ it is like equals() but ignores object attributes

○ checks the class of an object

◉ checks that a string matches a regular expression

○ check for equality with numerical fuzz

6. In which sub-directory of an R package should tests be placed?   1 point

○ src/

◉ tests/

○ man/

○ R/

7. What is Git?   1 point

○ an interactive development environment

○ a compiler for R code

◉ a web site for hosting source code repositories

○ a version control system

8. What is a pull request on GitHub?

1 point

- ⦿ a way to suggest changes to a repository that you do not own
- ◯ a way to recreate a repository on your local machine
- ◯ a thread in a discussion forum
- ◯ a copy of an existing repository

9. How can a merge conflict be resolved?

1 point

- ◯ send a pull request for one of your repositories
- ⦿ choose the code you want to use and delete everything else
- ◯ clone the repository with the conflicted code
- ◯ git can resolve all merge conflicts automatically

10. The GNU General Public License is called a copyleft license because

1 point

- ◯ the software can be modified and distributed without accompanying source code
- ◯ the GPL prohibits distribution of the software under any circumstances
- ◯ the GPL prohibits any modification of the source code of software
- ⦿ any software that is bundled with or orginates from software licensed under the GPL must also be released under the GPL