Biocomp Quizzes and Answers

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## *Quiz 1*

1. Commands, flags, and arguments in the Unix Shell are case sensitive. In other words, the Shell interprets upper and lower case versions of the same letter differently.

**False**

1. The uppermost directory in most file systems is called the “root”. Unix uses which symbol to denote the root directory?

**/**

1. Match the following ls command flags with the format or functionality they induce: A. show hidden files and directories B. display a / after each name that is a directory C. list in long format
2. -F **B**
3. -a **A**
4. -l (lowercase ell) **C**

## *Quiz 2*

1. Select the Unix code below that redirects the first 5 lines of ‘old.txt’ into a new file called ‘new.txt’.

**cat old.txt | tail -n 5 > new.txt**

1. In your own words and two sentences or less, why are for loops useful in Unix?

**For loops are useful in Unix because they prompt commands to be performed repeatedly so that the user doesn’t have to do the same thing multiple times.**

1. Imagine you have the following files in your working directory: a.csv, b.csv, one.txt, two.txt, z.csv. Choose the expected output from these Unix commands:

for file in \*.txt

do

echo $file

done

**one.txt** **two.txt**

## *Quiz 3*

1. Match the shell script variable with the argument it refers to. A. fifth B. second C. all of them D. first
2. $1 **D**
3. $2 **B**
4. $5 **A**
5. $@ **C**
6. In order to avoid problems with file names containing spaces being passed to shell scripts as an argument, you should surround the shell script variable (e.g. $1) with \_\_\_\_\_\_\_\_\_\_\_\_ when you use it.

**“$1”**

1. For loops do not work in a shell script.

**False**

## *Quiz 4*

1. In regular expressions, all alphanumeric characters match themselves.

**True**

1. The regular expression b.{1,2}k matches all of the following words except…

book bookbag **break** background

1. Each of the strings below is matched by which regular expression? canoe cannery canary carton

\*\*can\*[a-z]?\*\* ca[nr][a-z]{3} can+ ca[nr][a-z]{5,10}

## *Quiz 5*

1. Git is used when developing scientific computer code because…

**keep a history of code as it is developed in order to allow reversion to past versions and experiment with new aspects of the code.**

1. Git is the very first method for version control ever developed.

**False**

1. To create a new git repository, we use the command *git initialize*.

**False**

## *Quiz 6*

1. *ssh* (secure shell) is used to connect to another computer because…

**more than 1 shell is used to make the remote connection**

1. Someone needs to be using the remote computer in order for your commands sent to the remote computer to be executed.

**False**

1. To disconnect from the remote computer after connecting with *ssh*, the command *exit* is used.

**True**

## *Quiz 7*

1. How many panels are by default present in R Studio?

**4**

1. *Bash* or *Unix* has many more defined data structures than the R programming language.

**False**

## *Quiz 8*

1. For loops in R do not follow the same basic structure:

*for index\_variable in set*

that we learned when working in Unix.

**False**

1. Write a for loop in R that would print each of the numbers 1 to 5.

a<-1:5  
printnum<-numeric(length=length(a))  
for (i in seq\_along(a)){  
 printnum[i]<-a[i]  
}  
printnum

## [1] 1 2 3 4 5