

CSE 15L Summer Session I 2014

Practice Questions for Final

Example True/False questions:

1. You can check the difference between two arbitrary revisions in SVN. [T]
2. Science never proves theories, only disproves them. [T]
3. When debugging, it is a best practice to make one change at a time and keep a record of the changes. [T]
4. Shell scripts are not executable by default. [T]
5. In a shell script, line starting with #! are comments. [F]
6. In Unix, the command line arguments passed to a shell script are stored in positional parameters. [T]
7. A logger cannot have multiple handlers. [F]
8. It is a good practice to download the latest version of the software before you report a bug. [T]

Other example questions:

1. List three components of a good development environment for a mid-sized project team.
[In lecture slides.]
2. List two cons of test-driven development.
[In lecture slides.]
3. How is the command
`$cat file2`
different from
`$cat >file2` and `$cat >> file2`
?
[cat file2 displays the contents of file2, where as > and >> redirect the input to file2. > overwrites and >> appends to the contents of the file.]
4. What is redirection in unix? Provide an example command that uses redirection.
[Directing the flow of data to the file or from the file for input or output.
Example : `ls > wc`]
5. What Unix command is used for changing file access permissions?
[chmod]
6. What does the command "`$ls | wc -l > file1`" do?
[ls becomes the input to wc which counts the number of lines it receives as input and instead of displaying this count , the value is stored in file1.]
7. What is a pipe and give an example?

[A pipe is two or more commands separated by pipe char '|'. That tells the shell to arrange for the output of the preceding command to be passed as input to the following command.]

Example : `ls -l | pr`

The output for a command `ls` is the standard input of `pr`.

When a sequence of commands are combined using pipe, then it is called pipeline.]

8. One can change the access permissions on a file called 'temp.txt' to readable, writeable and executable only by the file owner.

[`chmod 700 temp.txt`]

9. Construct the pipe to execute the following job.

"Output of `ls` should be displayed on the screen and from this output the lines containing the word 'poem' should be counted and the count should be stored in a file."

[`ls | grep poem | wc -l > out.txt`]

10. The command

`$ cat par.3 par.4 par.5 >> report`

- a. displays contents of the files `par.3`, `par.4` and `par.5` on the command line and overwrites the file `report` with the output
- b. appends the file `report` with the contents of `par.3`, `par.4` and `par.5`
- c. displays contents of the files `par.3`, `par.4` and `par.5` on the command line and appends the file `report` with the output
- d. overwrites the file `report` with the contents of the file `par.5`

11. The positional parameter `$0` refers to:

- a. Total number of arguments
- b. Command or the script name
- c. First argument respectively.
- d. All the command line arguments starting from `$1`.

12. Define a shell array called `CLASS` with elements "Altintas", "CSE15L", "Fall 2013" in the given order. Display the second element with a Unix command.

```
[  
CLASS[0]="Altintas"  
CLASS[1]="CSE15L"  
CLASS[2]="Fall 2013"  
echo "Second element: ${CLASS[1]}"  
]
```

13. Complete the following sentence. "____[`pwd`]_____ command displays the current working directory in Unix shell."

14. List three tools for diagnostic output.

[In lecture slides.]

15. List three pieces of information provided by Java logging API.

[In lecture slides.]

16. Name three steps in debugging and put them in order.

[In lecture slides.]

17. Fill in the blank: The binary output from `hprof` can be opened using _[jhat]_.

18. List two things a bug reporter should read or check to report a good bug.

[In lecture slides.]

19. What is the difference between the heap and cpu options in hprof?

[Memory vs. cpu usage. In lecture slides.]

20. Using the cpu option in hprof with value as __[times]__ can significantly slow down progress.