CIS 90 – Practice Test 2 – Spring 2010

Name _____

Part 1 – From the flash cards (2 points each)

1. What command could be used to update the access and modification times of a file?

    _____

2. A new file named *original* is created
        touch original
    link1 and link2 are hard links to original
        ln original link1; **ln original link2**
    original is removed. What is the link count of *link1*?

    _____

3. With a umask of 002 what permissions would newly created file have?

    _____

4. What is the numeric permission equivalent of rwxr-xr--?

    _____

5. What redirection symbol is used to redirect standard input (stdin)?

    _____

Part 2 – Operational Questions (2 points each)

6. What single command line would count the number of accounts in */etc/passwd* that use */bin/bash* as the shell?

    _____

7. If the contents of the file named *characters* is:

        Hiro
        Ando
        Sylar
        Nikki

    What is the result of doing the following command?

        sort   characters > characters

    _____

8. Make a new directory that has a couple of files. Configure this directory so that:
   - you (the owner) cannot **cd** into it or remove its files, but you can list its files,
   - group users can **cd** into it, remove files from it, but not list files in it,
   - and all others have full permissions.
   What are the permissions on this directory (in numeric form)?

   _____

9. What are the permissions (in numeric form) on the file in /usr/bin with inode 1463202 ?

   _____

10. What complete command (no ";"s) creates a new directory named *spacecraft* containing two new sub-directories, named *skylab* and *apollo*?
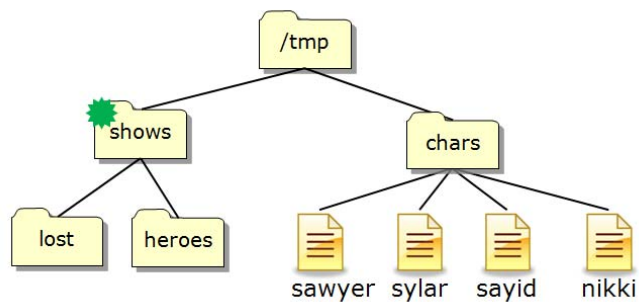
    _____

11. Benji messed up his games directory. His long listings now look like the following:

    /home/cis90/simmsben $ ls -l games
    total 0
    ?--------- ? ? ? ?   ? gopher
    ?--------- ? ? ? ?   ? fetch
    ?--------- ? ? ? ?   ? tug-of-war
    ?--------- ? ? ? ?   ? chase
    /home/cis90/simmsben $

    What command should Benji issue so he can see all his file information again?
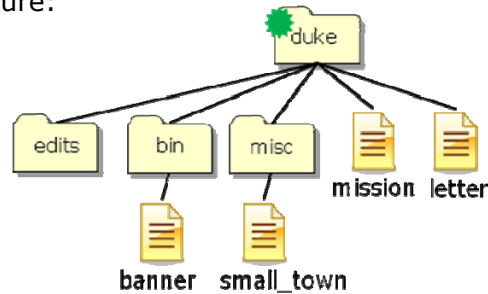
    _____

12. Given this directory structure:

    If your current working directory is *shows/*, what single command using filename expansion characters would move just the files *sawyer* and *sayid* to the *lost* directory?

    _____

13. Given this directory structure:

If your current working directory is *duke*, what single command (no ";"s) would move the *banner* and *letter* files to the *edits/* directory?

_____

14. From your home directory, what single command line using at least one filename expansion character and an environment variable, could be used to mail yourself the misspelled words in Shakespeare's first, second and fourth sonnets with a subject of "Billy's booboos"?

_____

15. Given the file *expressions* contains these two lines:

    5+5
    9/0

What complete command using **bc** would input the math problems in *expressions*, **append** the calculated answers to the file *results* and write any errors to the file *errors*?

_____

Extra Credit (1 point each)

16. You have been hired as a parser. You will need to parse command lines and identify the command, options, arguments and any redirection. This includes doing any filename expansion. Parse the command below and complete the section that follows:

    ls -l /usr/share/grub/i386*/sta??[12] 2> /dev/null

command: _____
option(s):   _____
             _____
             _____
argument(s):_____
            _____
            _____
redirection: _____ redirected to _____

17. On Opus, how many directories and sub-directories are in the /etc/ portion of the file tree that you have access to?

_____

18. **cd** into */home/cis90/roddyduk*, why does

    find –name treat?

only find one treat file, yet

    find –name 'treat?'

finds multiple treat files?

_____
_____
_____

19. If the umask is 022 and the permissions on the file *cinderella* are r-- --- ---, then what would be the permissions of the file *cinderella.bak* after doing the following command?

    cp cinderella cinderella.bak

_____

20. What complete command (with no ";"s) **counts** all the files belonging to you on the system, places a sorted list of them in the file *allmine,* and redirects error messages to the bit bucket?

_____

21. What command would set these permissions, rwxr-x---, on a file named *dogs*?

_____

22. What complete one-liner command (with ";"s) creates a file named *hiro,* changes that file's group to be *users,* then removes read permissions for group users on the file?

_____

23. Using only **echo** commands and file redirection, how could you create a file named *characters* so it would contain the following lines?
    Hiro
    Ando
    Sylar

_____
_____
_____
_____

24. What command would print only line 10 of the file *letter* in your home directory?
Hint: pipe output from **head** into **tail**.

_____

25. What is the actual absolute pathname to the **/etc/passwd** file?

_____