CIS 90 – Test 3 – Spring 2011

30 points + 10 points extra credit (each question worth 2 points)

Honor Code:
This test is open book, open notes, and open computer. The one restriction is that you must work alone and answer all test questions by yourself. You may not give or receive help from others.

Name:
Please type your name below to indicate your agreement to follow the honor code.

(name) _____

This test is very close to the practice test published last week. <mark>All differences have been highlighted for you.</mark>

When finished, save this file and email it as an attachment to: <u>risimms@cabrillo.edu</u> using your normal email program. Be sure to cc: yourself and verify what you sent.

The deadline to email your test is Midnight tonight. Tests emailed after the deadline will not be accepted.

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1) What would you type, to schedule making a backup copy of your <mark>letter</mark> file (to <mark>letter.bak</mark>), at <mark>3:00AM</mark>?

(q1)a _____

(q1)b _____

(q1)c _____

(q1)d _____

2) What command was used to produce this output?

```
-bash: route: command not found
/home/cis90ol/simmsben $
```

(q2)_____

3) You have received an email from Rich on Opus. What is Benji's favorite <mark>game</mark>?

(q3)_____

4) What is the absolute pathname for the */etc/passwd* file?

(q4)_____

5) How could you permanently modify your shell environment so that when you typed **show**, you would see any files you had copied to the /home/rsimms/turnin directory?

6) There is a *dogs* directory in the */home/rsimms* directory on Opus. Inside that directory are more directories and files. You may wish to explore that directory with the **tree** and/or **ls** commands.

From your home directory, what complete command, using the bracket "[ ]" meta-characters, and the wildcard "*" metacharacter, would copy just Twain's *Race* and *Tale* files to your home directory?

(q6)_____

7) Create a file in your home directory named *rin-tin-tin*.

What complete command would set the permissions on *rin-tin-tin* so that:
- you have only read & write permissions,
- group users have only read permission,
- and others have no permissions whatsoever?

(q7)_____

8) There is a *dogs* directory in the */home/rsimms* directory on Opus. Inside that directory are more directories and files. You may wish to explore that directory with the **tree** and/or **ls** commands.

Go through all the files in the *dogs* directory (and its sub-directories) and count the number of lines containing the word wisdom. How many lines contain the word wisdom?

(q8)_____

9) Using all of the following:
- a) The **echo** command using only arithmetic expressions as argument(s)
- b) The **bc** command
- c) A | (pipe)
- d) Some type of redirection

What command, using all the elements above, would output "Runtime error (func=(main), adr=5): Divide by zero" to a file named *errors*?

(q9)_____

10) Benji has a small problem. He has run the **app** program in one terminal and it's no longer responding. He wants to kill it but can't remember how. In his second terminal he displays his current processes:

```
/home/cis90/simmsben $ ps -u simmsben
  PID TTY          TIME CMD
24093 ?        00:00:00 sshd
24094 pts/7    00:00:00 bash
25463 pts/7    00:00:00 app
25764 ?        00:00:00 sshd
25765 pts/1    00:00:00 bash
25810 pts/7    00:00:00 sleep
25811 pts/1    00:00:00 ps
/home/cis90/simmsben $
```

What command should Benji use to send a SIGTERM signal to his **app** process?

(q10)_____

11) Copy the file */etc/httpd/conf/httpd.conf* to your home directory. This is the Apache web service configuration file. We are going to practice modifying this file to enable all Opus user accounts to publish their own web sites. Edit your copy of the *httpd.conf* file with **vi** and make the following changes:

- Find the line containing: **UserDir disable**
  and comment it out by placing a # in front of it.
- Find the line containing: **# UserDir public_html**
  and enable it by removing the # in front of it.

Save your changes and copy your modified *httpd.conf* file to the *turnin* directory using:

  cp httpd.conf /home/rsimms/turnin/ httpd.conf.$LOGNAME

What **ls** command could you use to verify your *httpd.conf* file was submitted correctly?

(q11)_____

Note: If we had modified the actual httpd.conf file in /etc/httpd/conf/, opened port 80 in the firewall and restarted the Apache service, then all Opus users would really be enabled to publish web sites.

12) Without making any changes to your shell environment on Opus, has your LS_COLORS variable been exported?

(q12)_____

13) Given the following command and output:

```
/home/cis90/simmsben $ lpstat
hplaser-577              simmsben              10240    Sat 04 Dec 2010 02:09:45 PM PST
hplaser-578              simmsben              33792    Sat 04 Dec 2010 02:09:52 PM PST
/home/cis90/simmsben $
```

What complete **lprm** command would Benji use to stop the printing of the larger file (the one queued at 02:09:52 PM PST)?

(q13)_____

14) What **scp** command (for Linux or Mac) or **pscp** command (for Windows) could you use to recursively download all the files in your home directory on Opus to your computer at home? (This command would be entered on your home computer, not Opus)

(q14)_____

15) From the */home/cis90ol* directory, what **tar** command would you use to archive:

- all the files in your home directory,
- all the files in the */home/cis90ol/bin* directory,
- and all the files in the */home/cis90ol/answers* directory

into a single tarball file in your home directory? This tarball should be named using your username with a .tar suffix.

(q15)_____

16) [Extra credit] From the Flashcards:

What command shows the name of the computer you are using?

(q16)_____

17) [Extra credit] From the Flashcards:

What environment variable is used by the shell to make the prompt?

(q17)_____

18) [Extra credit] From the Flashcards:

What is an example command to read mail messages saved in the local mbox file?

(q18)_____

19) [Extra credit] From the Flashcards:

What command will show a hex dump of a binary data file?

(q19)_____

20) [Extra credit] From the Flashcards:

What echo command would show all filenames in the parent directory starting with a p?

(q20)_____