

CIS 90 - Spring 2012 - TEST 1- 30 points

Honor Code:

This test is open book, open notes, and open computer. **HOWEVER, you must work alone. You may not share answers. You may not receive or give assistance to others.**

Name:

_____ (type your name to indicate your agreement to abide by the honor code above)

Instructions:

Download and save this test to your computer. Fill out the form, **save it** and email it as an attachment to **risimms@cabrillo.edu** using your regular (non-Opus) email. Please cc: yourself and verify you actually sent a non-blank, completed test to be graded.

Everyone should submit their test (completed or not) by the end of class.

If you need extra time, you can submit again by no later than 11:59PM. Only the last submittal will be graded.

Part 1 - These questions come from the online Flashcards (1 point each)

[Q1] In what file are all passwords stored?

[A1] _____

[Q2] What UNIX command prints your current working directory?

[A2] _____

[Q3] Is *../guest/Poems* a relative or absolute path?

[A3] _____

[Q4] What environment variable is used by the shell to determine which directories to search when locating a command?

[A4] _____

[Q5] Who initiated, and with the help of other programmers, developed the first Linux kernel?

[A5] _____

Part 2 – Use Sun, at IP address 172.30.4.18, to verify your answers to the following questions (1 point each)

Login to Sun using your own username and VLab password. Use Putty from any of the classroom or CIS Lab stations or the **ssh** command from any of the Kate or Mr-Eko VMs in VLab. If you use VLab, be sure to reserve the VM first on Fang.

[Q6] On Sun, when you enter the **ytt** command, what is the absolute pathname of the file that ACTUALLY is loaded and run by the shell? (Hint: it is NOT in the /suspicious directory)

[A6] _____

[Q7] On Sun, change to the `/var/u` directory and keep descending into sub-directories until you can't go down any farther. There you will find some regular files. Which of these files contains exactly 157 words?

[A7] _____

[Q8] On Sun, is the **cinderella** command on your path?

[A8] _____

If you used VLab to get to Sun then be sure and shutdown your VM when finished and remove your reservation from Fang so it is available for the next student.

Part 3 – Use VLab to verify your answers to the following questions (1 point each)

Use Fang to reserve a free Not-Opus VM. Power on the Not-Opus VM. Don't login yet.

[Q9] On Not-Opus, type the keystrokes to change to virtual terminal `tty1`. If the previous user did not logout, then type **exit** to logout. Above the login prompt you will notice a text string enclosed in `[]`'s. What is this text string?

[A9] _____

[Q10] On Not-Opus, login as cis90. What is the inode number of the */etc* directory?

[A10] _____

When finished, type **exit** to log out, then change back to tty7 (graphics) and shutdown the VM. Delete your reservation on Fang so another student may answer these questions.

Part 4 – Use Opus to verify your answers to the following questions (1 point each)

[Q11] On Opus, enter the **forest -Z** command. Which program generates the error message?

[A11] _____

[Q12] What is the absolute pathname of the directory where the **factor** command resides?

[A12] _____

[Q13] What command option directs the **tree** command to turn colorization on always?

[A13] _____

[Q14] Read your email on Opus. What is Benji's favorite game?

[A14] _____

[Q15] Calculate: $(23^2 * 4 - 119) - \text{sqrt}(676)$

and email the answer to **rsimms** using the **mail** command.

[Q16] What is the **echo** command that would output 'CIS 90 Students Rock' including the single quotes?

[A16] _____

[Q17] What is absolute pathname of */etc/passwd*?

[A17] _____

[Q18] What is the third directory on your path?

[A18] _____

[Q19] From your home directory, what single command, using an absolute path as an argument, would print the last 11 lines of the *AUTHORS* file in the */usr/share/doc/tar-1.15.1/* directory?

[A19] _____

[Q20] From your home directory, using a relative path and a filename expansion character, what command would you use to classify all files in the */home/cis90/depot/filetypes* directory to check if they are text or binary files?

[A20] _____

[Q21] Of all the files represented by */usr/share/doc/*/NEWS*, which is the largest?

[A21] _____

[Q22] What is the name of the smallest hidden file in simben90's home directory?

[A22] _____

[Q23] Of the regular files in the */home/cis90/depot/filetypes* directory, which is a Bourne shell script text executable file?

[A23] _____

[Q24] With the following command line, how many options are being specified?

```
cat -vET letter Poems/Blake/tiger Poems/Yeats/mooncat
```

[A24] _____

[Q25] With the following command line, how many arguments are being specified?

```
more -s -u letter Poems/Blake/jerusalem ../answers/lab01
```

[A25] _____

[Q26] With the following command line, how many arguments will be passed to the **type** command to process?

```
type /usr/bin/n*[mtn]*t
```

[A26] _____

[Q27] What file type is */bin/view*?

[A27] _____

[Q28] How many lines are in */etc/samba/smb.conf* (the Samba configuration file)?

[A28] _____

[Q29] What release of Red Hat Enterprise Linux Server is being run on Opus?

[A29] _____

[Q30] Who owns the */etc/passwd* file?

[A30] _____

Extra credit

[Q31] Create a variable named **musician** and set its value to Regina Spektor. On the same command line use the **echo** command to print the value of the **musician** variable (hint: use the metacharacter `"`). What command line will do all that?

[A31] _____

[Q32] What command will set the prompt to show the current date and a \$, using no more than 10 keystrokes?

e.g. On March 5th, the prompt would be: **Mon Mar 05 \$**

[A32] _____

[Q33] What single command, not using echo, would produce the output below?

```
tty (GNU coreutils) 5.97
Copyright (C) 2006 Free Software Foundation, Inc.
This is free software.  You may redistribute copies of it under
the terms of
the GNU General Public License
<http://www.gnu.org/licenses/gpl.html>.
There is NO WARRANTY, to the extent permitted by law.
```

Written by David MacKenzie.

[A33] _____

[Q34] Which shell program will be started for user milhom90 (uid=1047) when that user logs into Opus?

[A34] _____

[Q35] What complete command could display output such as the following, showing idle time, column headers and message status for users currently logged in?

NAME	LINE	TIME	IDLE	PID	COMMENT
rsimms	- pts/0	2012-03-05 07:38	.	14894	(10-20-30-40.dsl.com)
veleli90	+ pts/5	2012-03-05 08:02	.	15115	(10-20-30-42.cable.net)
simben90	+ pts/7	2012-03-04 14:14	19:15	6429	(10-20-30-50.dsl.com)

[A35] _____