

CIS 90 - Spring 2012 - PRACTICE TEST 3 - 30 points

Timed Test (2 hours 50 minutes)

10 questions

1 extra credit question

Honor Code:

This is a practice test and you may work with others and use the forum. However on the real test you will not be able to work with or receive help from others.

Name: _____

Practice downloading and emailing the completed test to yourself as an attachment. On the real test you will email your filled-in test to the instructor. Make sure you can read the answers on the test after you have emailed it as an attachment.

Note to Mac users:

Make sure Adobe Reader doesn't strip preceding /'s from your answers in saved PDF file.

Note to instructor:

Add tahiti file on Sun

Print spool files on Sun

Add ptest03-broken script to class depot directory on Sun

Navigate and Manage the UNIX/Linux File System

Automate and schedule tasks

Customize the shell environment

Part 1 – Use Sun (a Fedora Linux system) in VLab for the following questions (3 points each)

Login to Sun, using your own username and VLab password:

- Use Putty from any of the classroom or CIS Lab stations
- Or use the **ssh** command from any of the Kate, Not-Opus, or Mr-Eko VMs in VLab. If you use VLab, be sure to reserve the VM first on Fang.

[Q1] What is Benji's favorite character on Lost? To find out, you need to add the `/usr/local/bin/test03` directory to your path on Sun, run **tahiti** and send it a SIGUSR1 signal.

[A1] _____

[Q2] There are two files buried in `/etc` on Sun that contain "me gusta Linux". What are the inode numbers of these two files?

[A2] _____

[Q3] Which user owns the files you found in Q2 above?

[A3] _____

[Q4] On Sun there is a file named *passwd* in the */etc* directory. What is the absolute pathname of this file?

[A4] _____

[Q5] On Sun, 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 Sun users 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 disabled** 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 on Opus using:

```
scp httpd.conf $LOGNAME@opus.cabrillo.edu:/home/rsimms/turnin/httpd.conf.$LOGNAME
```

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 be enabled to publish web sites.

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

[A5] _____

[Q6] On Sun, examine the print queue and DELETE all print jobs that belong to you. Next, determine the UID (the number not the name) of the user who has the file "Haystacks" queued to print?

[A6] _____

Benji is having trouble getting his script below working. He has two syntax errors and one logic error which he needs your help to find and fix. He put a copy in the `/home/cis90/depot` directory on Opus.

```
/home/cis90/simben $ cat ../depot/ptest03-broken
#!/bin/bash
# Show information about random file (or directory)
#   Benji Simms
#   Spring 2012

# Clear screen, start in user's home directory
clear; cd

echo I'm going to to pick a random file from the file tree for you
read -p "Ready? (press Enter to continue)"

# Make a list of all files and select one randomly
find / > allfiles$$ 2> /dev/null          # Make list of filenames
numFiles=`cat allfiles$$ | wc-l`         # Count them
random=`cat /dev/urandom | od -N3 -An -i` # Get large random number
let "random %= numFiles"                 # Divide by numFiles save
    remainder
file=`sed -n ${random}p allfiles$$`      # print random line of filename
    list

# Show random file to user
echo; echo File $random of $numFiles is:
echo $file

# Show additional information about the file selected
echo; echo "Now I'm going to give your some more information on this file"
read -p "Ready? (press Enter to continue)"
directory=`dirname $file`
filename=`basename $file`
description=`file -b $file`
inode=`ls -lid $file | cut -f6 -d" "`

echo; echo "Filename is: " $filename
echo "In directory: " $directory
echo "Description: " $description
echo "Inode: " $inode

# Clean up temp files (note $$ is the PID number)
rm allfiles$$
exit
```

[Q7] What are the two syntax errors in Benji's script?

[A7] _____

[Q8] What is the logic error in Benji's script?

[A8] _____

Part 2 – Use Opus (a Red Hat Linux system) for the following questions

[Q9] On Opus, schedule a job to run at exactly 02:03 AM tomorrow that emails me a copy of your favorite poem. Cc: yourself and make the email subject be the name of the poem. What command will confirm this job has been scheduled?

[A9] _____
(I will check your answer above and check that the emailed poem was sent at the correct time)

[Q10] On Opus, how could you permanently modify your shell environment so that when you typed **show**, it would display all files in the */home/rsimms/turnin* directory?

[A10] _____

Extra Credit (3 points)

Fix Benji's script above on Sun and **scp** it to the */home/rsimms/turnin* directory on Opus, naming it *ptest03-extra.\$LOGNAME*