

Resources: Open book and Internet during the test

In addition you may use the forum during the week prior to the test to clarify, ask and answer questions. However during the actual test you will not be able to ask for or get assistance from others.

60 point total

Part A – Questions (20 points)

- Ten questions
 - Five from past quizzes
 - Five based on random lesson material

Part B – Demonstrate skills (40 points*)

- Use the pristine Benji VM on the class computers (**revert to snapshot**)
- Create a file named *final* to document your results.
- Demonstrate and document any **four of the following six** tasks (10 points each*)
- Do additional tasks for extra credit (10 points each*)

Task 1

- Add three new accounts to Benji. See the whiteboard for the names and UIDs for these new users. Their primary group should be *dogs* (gid=600)
- Configure their initial passwords to the one shown on the white board.
- Modify the accounts so that *the 1st new user* can login with no password, the 2nd must be forced to change his password on his next login and the 3rd is locked out.
- Configure their shell environments with the this alias:
`alias woof=who`
- Create a Message of the Day that says “All dogs welcome here”
- Record in *final* the files/output that verifies you accomplished this task.
- Demonstrate your results to the instructor
 - Instructor’s initials: _____

Task 2

- Add a 2nd 5 GB hard drive
- Partition the hard drive with a 200MB primary partition
- Format the new partition as ext3 with a label (volume name) of /home.
- Transfer the files in your /home directory to the new partition.
- Remove all files from the old directory and modify /etc/fstab so that the new /home directory is properly mounted at system bootup.
- Using user quotas, restrict all non-root users to 5 MB of space in their home directories
- Test the limit for one of the users.
- Record in *final* the files/output that verifies you accomplished this task.
- Demonstrate your results to the instructor
 - Instructor’s initials: _____

Task 3

- Configure CUPS so it can be remotely managed

- Configure printing to a HP LaserJet 1320N
- Find the benji-500x420.jpg file buried in the /opt/lampp/htdocs directory and print it.
- Record in *final* the files/output that verifies you accomplished this task.
- Demonstrate your results to the instructor
 - Instructor's initials: _____

Task 4

- Add a 2nd 5GB hard drive (if not done from a previous task)
- Create a new 400 MB partition on the second drive.
- Format the new partition with an ext3 filesystem and label (volume name) of /backup.
- Create a top level directory named /backup and mount your new filesystem there. Modify /etc/fstab so it mounts automatically at system boot.
- In /backup create two directories named *full* and *incremental*.
- Do a full backup using dump of the /opt directory into your /backup/full directory.
- Modify or touch a few files in /opt/lampp/htdocs
- Do an incremental backup of the /opt directory into your /backup/incremental directory.
- Verify you can restore /opt files from this backup.
- Record in *final* the files/output that verifies you accomplished this task.
- Demonstrate your results to the instructor
 - Instructor's initials: _____

Task 5

- Make a short term cronjob that:
 - does a backup of all files changed since the last full backup in Task 4. This job should run three times within a short time interval so you can modify some files before each backup takes place.
 - Runs a CPU intensive script
- Use top command and capture (copy and paste) the impact to your system from the CPU intensive script. Place this output in your final file.
- Record in *final* the files/output that verifies you accomplished this task.
- Demonstrate your results to the instructor
 - Instructor's initials: _____

Task 6

- Add a 2nd 5GB hard drive (if not done from a previous task)
- Create a new 3 GB partition on the second drive.
- Format the new partition with an ext3 filesystem and label (volume name) of /depot.
- Download and compile a kernel of your choice.
- Boot up using new kernel.
- Record in *final* the files/output that verifies you accomplished this task.
- Demonstrate your results to the instructor
 - Instructor's initials: _____

*You must submit your final file to get credit. Use the following:

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scp final cis191@opus.cabrillo.edu:final.lastname
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