

Multiple choice questions, please mark (x) on the answer!

1. The previous system administrator put useless messages at login, what file do you edit to change the system message?

- ☒ A. /etc/mod
- B. /etc/str
- C. /etc/strtmps
- D. /etc/conf

2. Which file does Linux use to resolve hostnames?

- A. /etc/hostname.conf
- B. /etc/dns.conf
- C. /etc/host.conf
- ☒ D. /etc/resolve.conf

3. What is bash?

- A. Something you do to a watermelon
- B. A command to delete multiple files
- C. A network bit format
- ☒ D. command shell

4. You attempt to remove a directory, but Linux won't allow you, what is the most likely problem?

- A. The directory name contains illegal characters
- ☒ B. You are not logged in as root
- C. The directory is not empty
- D. None are likely problems

5. Which command creates a file system?

- A. Fdisk
- B. Crfs
- ☒ C. Mkfs
- D. Fs

6. Suppose that you have an application whose behavior depends on the environment variable BAR. Which of the following command lines may be used in a bash shell to configure the application? (Multiple Answer)

- A. export \$BAR=baz; echo \$BAR
- B. set BAR=baz
- ☒ C. BAR=baz ; export BAR
- D. echo \$BAR=baz
- ☒ E. declare -x BAR=baz
- F. echo BAR=baz

7. Which of the following commands can be used to assure that a file 'myfile' exists?

- A. cp myfile /dev/null
- ☒ B. touch myfile
- C. create myfile
- D. mkfile myfile

8. Which Linux file can be used to configure the default bash shell behavior for EVERY users on a system?

- A. /etc/skel/.bashrc
- B. /home/.bash_profile
- ☒ C. /etc/profile
- D. /etc/passwd

9. Suppose for this question that you have a file called 'wordlist' that contains a number of words, one per line. You would like to produce an ad-hoc report that contains a numbered list of the first five words, according to alphabetical order. Which of the following command lines can be used to produce this report to the console?

- ☒ A. sort wordlist | nl | head -5
- B. split -1 wordlist ; cat xa? | head -5
- C. nl wordlist | sort | sed '/^[^12345]/d'
- D. nl wordlist | sort | head -5

10. The command 'ps -A' displays an ordered list of all running processes, with the right-justified process ID in the first space-separated field. Suppose you would like to display to screen a list of the five most recently launched processes (those with the highest process IDs). Which of the following commands will display the desired items?

- A. ps -A | tail -5 | cut -f 1 -d " "
- B. ps -A | tail -5 | sed 's/[]*[0-9]*\$//'
- C. ps -A | head -5 | nl
- ☒ D. ps -A | tac | head -5 | cut -b 0-5

11. According to the Linux filesystem hierarchy standard, which of the following directories would be an appropriate location for a user to install a shared application to?

- A. /sbin
- B. /dev/user/bin
- ☒ C. /usr/local/bin
- D. /etc/bin

12. # jobs -l

```
[1]  5110 Running          kedit &
[2]- 5382 Stopped (signal) pine
[3]+ 5457 Stopped (tty output) vi
```

Given the 'jobs' display in the exhibit, which command could you use to switch display focus to the application 'vi'?

- A. bg %3
- ☒ B. fg %3
- C. top -p 5457
- D. switch %5457

13. Which of the following command lines can (possibly) be used to format a partition? Assume required partitions exist, and also that logical partitioning is used on each hard-disk.

- ☒ A. `mkfs -t msdos /dev/sda1`
- B. `mkfs.ext2 /dev/null`
- C. `mkfs -t ext2 /dev/hda4`
- D. `mkfs --type=ext2 /dev/hdb7`

14. Which Linux command can be used to repair improperly shutdown, or otherwise potentially corrupt partitions?

- A. `chkdsk`
- B. `scandisk`
- ☒ C. `fsck`
- D. `fdisk`

15. Suppose you have created a new application 'myapp', and copied it to the directory '/usr/local/bin'. You would like all the users of the system to be able to run your application. Which of the following command lines would allow the appropriate access?

- ☒ A. `chmod o+x /usr/local/bin/myapp`
- B. `chgrp bin /usr/local/bin/myapp`
- C. `umask 0022 /usr/local/bin/myapp`
- D. `chown 755 /usr/local/bin/myapp`

16. Based on Linux' partition naming system, which of the following device names point to "logical" partitions (assuming the corresponding partitions exist at all on the system in question)?

(Multiple Answer)

- A. `/dev/sda3`
- B. `/dev/fd0`
- C. `/dev/hdb7`
- D. `/dev/hda4`
- E. `/dev/fd7`
- F. `/dev/sdc11`

17. Assume that your current working directory is '/tmp' and your home directory is '/home/jane'. Which of the below commands will copy all the content of '/tmp/test/' to a 'test' subdirectory of your home directory?

- A. `cp -r test/* /home/jane`
- ☒ B. `cp -r ./test ~`
- C. `cp -r ~/test .`
- D. `cp -r /tmp/test /home/jane/test`

18. Which of the following Linux utilities does NOT include the capability to list the process IDs of running applications?

- A. `jobs`
- B. `ps`
- ☒ C. `nice`
- D. `top`

19. Some tools that use regular expressions support so-called "extended" regular expressions. For example, GNU 'grep' with the '-E' option uses extended regular expressions. Other tools like 'sed' only support "basic" regular expressions. As a consequence, one must be careful in selecting the right regular expression syntax. Which of the following characters have a special meaning in extended regular expressions, but not in basic regular expressions. That is, which of the following is an extended regular expression "meta-character", but only a regular character in basic regular expressions?

- A. ^
- B. [
- ☒ C. +
- D. *

20. Which of the following Linux command lines can be used to examine kernel bootup messages after boot time?

- ☒ A. dmesg | less
- B. less /proc/kmsg
- C. bootlog -v
- D. vi /var/log/messages

The next question is practical!

Please access Linux server using SSH:

IP Address :182.16.255.87
Username :candidate
Password :P@ssw0rd123

1. Create a bash script that displays numbers from 1 to 100, with each number printed into a file called "numbers.txt"!
2. Create a database backup script to backup the database named "barber" using the Bash Script, after that set a schedule for the script to run 1x a day at 12pm!
3. Create a bash script that displays odd numbers from 1 to 50!

Put your answers in the directory /home/candidate/"your-name"