Advanced Use of Linux Operating System
Qualifying Exam - March 7th, 2018

Name: _____   ID Number: _____

1. Who holds the leading authority in Linux development today?

   A. Linus Torvalds   B. Richard Stallman   C. Lennart Poettering   D. Steve Ballmer

2. Debian, Fedora and OpenSUSE are examples of many Linux

   A. distributions   B. classes   C. components   D. segments

3. The licence most commonly used with Linux is:

   A. BSD   B. MIT   C. GPL   D. Apache

4. Two types of distribution updates are:

   A. stable and testing   B. rolling and stable   C. rolling and rocking   D. unstable and stable

5. Which of these is commonly used to manually add removable storage?

   A. /bin   B. /mnt   C. /lib   D. /etc

6. One can check disk space usage by running which of these commands?

   A. ds   B. ls   C. df   D. free

7. An empty file can be created by running:

   A. mk   B. touch   C. mv   D. pwd

8. Which of the following commands would create a directory called "`linux`", and another one within it, called "`osnovni`"?

   A. `touch -p linux/osnovni`
   B. `touch linux/osnovni`
   C. `mkdir linux/osnovni`
   D. `mkdir -p linux/osnovni`

9. Our current working directory is `/home/pedro/.config/hexchat/assets`. Where will we end up after running the command `cd ../../././../` ?

   A. `/home/pedro/.config/hexchat`
   B. `/home/`
   C. `/home/pedro/.config/`
   D. `/home/pedro/`

10. Which sequence of characters redirects stdout and stderr elsewhere?   A. 2>&1   B. &>   C. >   D. >2

11. yes is a command which, in its base form, merely prints 'y' to the standard output. Sometimes, we don't want scripts and commands to pest us with "[y/n]" confirmations, and instead want them to simply assume 'y' to be the answer to all questions. The command `rm -ri <directory>` is an example of such a command. Which of the following enables the behavior described above?

    A. `rm -ri | yes`   B. `yes | rm -ri`   C. `rm -ri && yes`   D. `yes || rm -ri`

12. In order to redirect the printing of errors (and **only** errors) encountered during the execution of some command to some file, which of the following should we append to the command being run?

    A. `1>./some`$_{file}$ B. `2>./some`$_{file}$ C. `&>./some`$_{file}$ D. `>./some`$_{file}$

13. Odd man out! Which of these doesn't fit?

    A. before   B. while   C. until   D. for

14. The command ls -ld /etc/??? lists: A. all files whose name has at least 3 characters   B. all directories whose name starts with ???   C. all directories whose name has exactly 3 characters   D. all files named ???

15. In bash, every variable is of the type:

    A. integer   B. string   C. double   D. char

16. In regular expressions, which character denotes End-of-Line?

    A. ^   B. $ C. >   D. *

17. What is the result of running   `sed -r "s/(.*)\.(.*)\.(.*)/\2\1\3/"` on the string A.B.C?:

    A. CBA   B. ABC   C. BAC   D. CAB

18. Choose the command which will, given a string containing any number of digits followed by a word (e.g. 1337banana, 90000mango), strip off the numbers and turn all letters to uppercase.

    A. `sed -r "s/([[:digit:]])*(.*)/\U\2/"`
    B. `sed -r "s/([[:digit:]])(.*)/\u\2/"`
    C. `sed -r "s/([[:alnum:]])*(.*)/\u\1/"`
    D. `sed -r "s/([[:alnum:]])(.*)/\U\2"`

19. Which of these commands will remove the sequence of characters ".?" (without quotation marks) from the end of the line?

    A. `sed -r "s/(.*)(.?)$/\1/"`
    B. `sed -r "s/\.*.?$/\1/"`
    C. `sed -r "s/(.*)(\.\?)$/\1/"`
    D. `sed -r "s/(\.*)(\.\?)$/\2/"`

20. The line `root:T3RqrzxU1MAH3F3wtuQu/:13284:0:99999:7:::` is a representative line from which file?

    A. `/etc/root`   B. `/etc/sudoers`   C. `/etc/fstab`   D. `/etc/shadow`

21. The line `GROUPTWO ALL = NOPASSWD: /usr/bin/updatedb, PASSWD: /bin/kill` is a representative line from which file?

    A. `/etc/root`   B. `/etc/sudoers`   C. `/etc/fstab`   D. `/etc/shadow`

22. The primary group for each user is written in:

    A. `/etc/hosts`   B. `/etc/passwd`   C. `/usr/passwd`   D. `/usr/group`

23. The command "su" run with no arguments:

    A. gives the current user sudo privileges
    B. switches the current user with `root`
    C. creates a new user
    D. returns an error due to being run improperly

24. Which command ensures the file may only be read and nothing else?

    A. `chmod 444 some`$_file$
    B. `chmod 755 some`$_file$ C. `chmod 777 some`$_file$ D. `chmod 333 some`$_file$

25. Which command permits deleting files inside of a directory **only** to the directory owner and root?

    A. `chmod +X some_directory`
    B. `chmod +r some_directory` C. `chmod +t some_directory` D. `chmod -X some_directory`

26. Which of these is valid if you want to run a command in the background?

    A. `<command> $`
    B. `<command> &`
    C. `<command> !`
    D. `<command> ^`

27. What does the $$ variable contain?

    A. current kernel version
    B. *PID* of the current process
    C. *exit code* of the last run program
    D. the default terminal emulator

28. Which signal is sent by pressing Ctrl+C?

    A. `SIGKILL`   B. `SIGTRAP`   C. `SIGHUP`   D. `SIGINT`

29. Choose the "strongest" signal:

    A. `SIGKILL`   B. `SIGTRAP`   C. `SIGHUP`   D. `SIGINT`

30. If a user wants to suspend the active process, which of these key combinations will enable them to do it?

    A. `CTRL+C`   B. `CTRL+Z`   C. `ALT+C`   D. `CTRL+D`

Which term do You prefer:
A. In the morning (10-12)   B. In the afternoon (12-14)