**Exam 101 Answers**

1. A. Choice A would run cmd1 and then cmd2 regardless of the output of cmd1.

Choice B would run cmd1 sending the output to cmd2. Choice C would append

the output of cmd1 to the file cmd2. Choice D would send the output of cmd1 to

the file cmd2.

2. 15. The default signal used with the kill command is 15, sigterm.

3. C. Choice A, the grep utility, searches files for the specified expression. Choice

B, the find utility, searches directories for files. Choice C, the locate utility,

searches the slocate database. This database is updated using the updatedb

command. Choice D does not search for files.

4. B. Choice A, the job utility, is used to view backgrounded processes. Choice

B, nice, is used to change the priority of a process as it is run. Choice C,

renice, is used to change the priority of a process before it is run. Choice D,

top, is used to view process information.

5. D. Choice A would change the ownership of myfile if the userid of the new

owner were specified. Choice B would change the permissions of my file to

-rw-rw---x. Choice C would change the permissions on myfile to --wx-wx-

-x. Choice D would change the permissions on myfile to -rw-rw-r--.

6. A. The /etc/passwd file contains the user’s home directory settings. Choice

B, /etc/skel, contains files that are copied to all users’ home directories.

Choice C, /etc/profile, contains systemwide environment settings. Choice

D, /etc/bashr, contain global bash settings.

7. crontab. The crontab command is used to view jobs scheduled to run using

Crond.

8. C. Choice A does not follow the correct syntax for the sed command. Choice B

would locate all instances of the letter l and replace them with L. Choice C

would search for the word lady and replace it with Lady. Choice D would

search for the word lady but would pipe it to the tr utility, not replace lady

with Lady.

9. D. Choice A, nice, is used to set the priority of a process when it is run.

Choice B, renice, would change the priority of a process after it has been

run. Choice C, ps -aux, would view a snapshot of all running processes.

Choice D, top, displays a real-time view of processes.

10. D. Choice A, /etc/proc/, is not valid. Choice B, /mnt, is simply a directory.

Choice C, /etc/fstab, contains a listing of file systems that can be mounted at

boot. Choice D, /etc/mtab, contains a listing of all currently mounted file

systems.

11. B. Choice A, echo, can be used to view the assignment of environment vari-

ables. Choice B, export, makes the environment variable assignment avail- able

system-wide. Choice C, cat, is used to view the contents of a file. Choice D, env,

is used to view all environment variables declared on the system.

12. D. Choice A uses an incorrect option for the mv command. Choice B would copy

all files from /ME to /YOU and delete /ME, but directories would not be copied.

Choice C would produce a syntax error because the last argument when moving

a directory must be a directory name. Choice D would recur- sively copy the files

and directories in /ME to /YOU, after which they would be deleted from /ME.

13. B. Choice A would create the xmaslist file from the contents of the list file

while trying to create each line of the same length. Choice B would alphabet- ize

the list, then number it and send the output to the xmaslist file. Choices C and

D would produce errors because the ln command and the pipes are used

incorrectly.

14. C. Only Choice C is correct. The -9 signal is used to kill a process without

allowing it to end gracefully. The default signal, used with answer A, is -15,

sigterm, the -now signal is not valid, and the -12 option is sigusr2.

15. A, C, and D. When creating a new partition for use, the fdisk utility is used to

create the partition, the mkfs utility is used to format the partition, and the

mount utility is used to mount the file system for use.

16. du. The du utility is used to display directory space usage information.

17. C. The quota command is used to view user quotas. The quotaon command is

used to enable quotas. The edquota command is used to edit disk quotas. The

vi editor is started by the edquota command when editing quotas.

18. D. The umask of 002 would be used to filter the write permission for other

users.

19. A. The /etc/shadow file must be readable by only the root user.

20. D. The shutdown command, when used alone, will switch to single-user mode.

The telinit command can be used to change runlevels, with level 6 used for

rebooting and level 0 used to halt or shut down the system.

21. A and D. The useradd command is used to create new user accounts while

the passwd command is used to set the user’s password.

22. B. The permissions of read and execute have a numeric value of 5 while the

read permission has a value of 4.

23. C. The more utility is used to view a file one page at a time. The grep utility is

used to search a file. The man utility is used to present manual pages that con-

tain information about commands. The help utility displays information only

for built-in commands.

24. /etc/skel. Files that are to be copied to each user’s home directory should

be placed in the /etc/skel directory.

25. C. The shell prompt is configured with the PS1 environment variable. The

PATH variable is used for the command path while the home directory is

contained in the HOME variable.

26. A, C, and D. The cd command, when used alone, changes the user’s pwd to

their home directory. The $HOME variable and the ~ also can be used to

represent the user’s home directory. The cd .. command is used to move

up one directory in the directory tree.

27. C. The /etc directory contains many of the configuration files for the system.

The /root directory is the home directory for the root user. The /sbin direc-

tory contains utilities used by the superuser. The /usr/local directory is

used to store software that isn’t part of the operating system.

28. B. The /etc/passwd file is used to store shell script assignments along with

home directory assignments. The /etc/skel directory contains the files to

be copied to each user’s home directory. The /etc/profile file contains

global user settings. The LILO boot loader is used to configure booting

options.

29. D. The cp and mv commands can be used to relocate the files. Hard links

cannot span file systems. Using soft links, you can have the files appear to be

stored on one file system while actually existing on another.

30. A. The userdel -r command is used to remove a user’s home directory as

well as their account. The usermod command can be used to disable a user’s

account. The passwd utility is used to change a user’s password.

31. od. The od utility allows files to be viewed in octal and hexadecimal formats.

32. A. The grep utility is used to search a file for the specified string. The locate

command searches the slocate database for specified files. The find com-

mand searches directories for the specified files. The where command is

Invalid.

33. D. The & character is used to background a process when it is run. The fg

command is used to bring a process to the foreground. The bg command is

used to background a suspended process. The Ctrl+Z sequence can be used to

suspend a foreground process.

34. B. Man pages can be used to discover more information on commands and

utilities. The HOWTOs contain information on configuring specific software

and hardware. The /usr/doc directory contains information on installed

applications. The dmesg command is used to display system messages.

35. B. The & character is used when running a process to specify that it runs in

the background.

36. C. The HOME variable stores the user’s home directory. The PS1 variable stores

the command prompt settings. The PATH variable contains the paths to search

when running commands. The TERM variable stores the terminal setting.

37. chown. Ownership of files and directories is changed using the chown command.

38. A. The dmesg command is used to view system messages. Neither messages

nor errors is a valid command. The lilo command is used when updating

boot loader options using the /etc/lilo.conf file.

39. B. Only the tar utility is capable of creating an archive while compressing the

file. The gzip, compress, and bzip2 utilities are used to compress and

uncompress files.

40. D. The dmesg command is used to view system messages. The ls command is

used to view directory contents. The bg command is used to run a process in

the background. The jobs command is used to view jobs running in the

background.

41. C. The tac utility displays files in reverse. The cat utility is used to display file

contents. The head utility is used to view the beginning of a file. The top utility

is used to view real-time information on system processes.

42. C. Stop limits and max limits are invalid. Soft limits can be exceeded for a

period of time, while hard limits prevent a user from creating new files.

43. B. Runlevel 0 is used to halt the system; level 1 is used to enter single-user

mode; level 3 can vary according to the distribution; and level 6 is used to

reboot the system.

44. C. The /etc/fstab file contains file system information. The /etc/passwd

file contains information on user accounts. The /quota.user file contains

quota information for users. The /lilofile is invalid.

45. D. The man page can be specified using the syntax man NUMBER command.

This correct syntax is shown as man 3 syslog.

46. D. The cat, more, and less utilities are all used to view file contents. The

expand utility is used to convert tab characters to spaces.

47. umount. File systems are unmounted using the umount command.

48. history. The history command allows you to view previously entered

commands.

49. B. The Web site www.deja.com enables you to search Usenet postings.

50. A. The /proc directory is virtual. It is used to store information about system

resources and processes.

51. fsck. The fsck utility is used to verify and correct problems on file systems.

52. A. The -R option specifies that a recursive directory listing be performed.

Data is sent to a file when the > symbol is used for redirection.