Chapter 7

**Review Questions:**

1. Because Standard Error and Standard Output represent the results of a command and Standard Input represents the input required for a command, only Standard Error and Standard Output can be redirected to/from a file.

* **False**

1. Before a user-defined variable can be used by processes that run in subshells, that variable must be \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_?

* **exported**

1. The alias command can be used to make a shortcut to a single command.

* **True**

1. Which of the following files is always executed immediately after any user logs in to a Linux system and receives a BASH shell?

* **/etc/profile**

1. Which command could you use to see a list of all environment and user-defined shell variables as well as their current values?

* **set**

1. Every if construct begins with if and must be terminated with \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

* **fi**

1. Which of the following will display the message welcome home if the cd  /home/user1 command is successfully executed?

* **cd /home/user1 && echo "welcome home"**

1. The current value for the HOME variable is displayed by which of the following commands? (Choose all that apply.)

* **echo $HOME echo ls HOME**
* **echo ~**

1. Which of the following file descriptor numbers represents stdout?

* **1**

1. Which of the following operators reverses the meaning of a test statement?

* **!**

1. What would be the effect of using the alias command to make an alias for the date command named cat in honor of your favorite pet?

* **When you use the cat command at the command prompt with the intention of viewing**

1. How do you indicate a comment line in a shell script?

* **Begin the line with #.**

1. You have redirected Standard Error to a file called Errors. You view the contents of this file afterward and notice that there are six error messages. After repeating the procedure, you notice that there are only two error messages in this file. Why?

* **You did not append the Standard Error to the Error file, and as a result it was overwritten when the command was run a second time.**

1. The sed and awk commands are filter commands commonly used to form data within a pipe.

* **False**

1. What is wrong with the following command string: ls /etc/hosts › listofhostfile?

* Nothing is wrong with the command.

1. Which of the following is not necessarily generated by every command on the system? (Choose all that apply.)

* **Standard Input**

1. Which construct can be used in a shell script to read Standard Input and place it in a variable?

* **read**

1. A for construct is a loop construct that processes a specified list of objects.As a result, it is executed as long as there are remaining objects to process.

* True

1. What does » accomplish when entered on the command line after a command ?

* **It appends Standard Output to a file.**

1. Consider the following shell script:

echo -e "What is your favorite color? - - › \c"

read REPLY

if ["$REPLY" = "red" -o "$REPLY" = "blue" ]

then

echo "The answer is red or blue."

else

echo "The answer is not fi red nor blue."

fi

What would be displayed if a user executes the program in question 20 and answered

* **The answer is not red nor blue. The code would cause an error.**

Chapter 8

**Review Questions:**

1. Which command can be used to fine-tune the vsync and hsync of a video card for use in X Windows?

c. xvidtune

2. Which of the following statements is true?

b. LILO needs to be reinstalled after it has been modified.

3. Which directory stores most UNIX SysV rc scripts?

b. /etc/rc.d

4. Which runlevel halts the system?

c. 0

5. Which file does the UNIX SysV init daemon reference on startup to determine the default runlevel?

d. /etc/inittab

6. Which command can be used to start X Windows, the window manager, and the default desktop environment?

c startx

7. Which of the following statements is true?

b. Either the MBR/GPT or the active partition can contain the boot loader.

8. Which of the following indicates the second partition on the third hard disk drive to GRUB?

d. (hd2,1)

9. Which two implementations of X Windows are commonly used in Linux? (Choose two answers.)

a. X.org

d. XFree86

10. What is the name of the directory that contains symbolic links to UNIX SysV rc scripts for runlevel 2?

a. /etc/rc2.d

11. In what directory is Stage2 of the GRUB2 boot loader stored?

a. /boot

12. The first daemon loaded on a Linux system is \_\_\_\_\_\_\_\_\_\_\_.

c. init

13. Which command causes the system to enter Single User Mode?

b. init 1

14. The timeout value in the GRUB configuration file is measured in?

a. seconds

15. You have recently modified the options within the /etc/default/grub file. What command can you use next to rebuild the GRUB2 configuration file?

d. grub2-mkconfig

16. You wish to configure the runlevels that a particular upstart daemon is started in. What should you do?

c. Modify the daemon configuration file within the /etc/init directory.

17. Which of the following Systemd commands can be used to stop a daemon called lala?

b. systemctl stop lala.service

18. Which of the following commands can be used to start a UNIX SysV daemon called lala in runlevels 1, 2, and 3?

a. chkconfig --level 123 lala on

19. What Systemd target corresponds to runlevel 5?

b. graphical.target

20. What keyword can be specified within a boot loader to force the system to boot to Single User Mode?

c. single

Chapter 9

**Review Questions:**

1. Which command entered without arguments is used to display a list of processes running in the current shell?
   1. ps
2. Which of the following statements is true? (Choose all that apply.)
   1. If /etc/at.allow exists, only users listed in it can use the at command.
   2. If /etc/cron.allow exists, only users listed in it can use the cron command.
   3. If /etc/cron.deny exists and /etc/cron.allow does not exist, any user not listed in /etc/cron.deny can use the cron command.
3. Where are individual user tasks scheduled to run with the cron daemon stored on a Fedora system?
   1. /var/spool/cron/(the user’s login name)
4. Which process will always have a PID of 1 and a PPID of 0?
   1. init
5. A process spawning or initiating another process is referred to as  .
   1. forking
6. As daemon processes are not associated with terminals, you must use the –e switch with the ps command to view them. True
7. Which of the following commands will most likely increase the chance of a process receiving more time slices?
   1. renice -12
8. How can you bypass the wait function and send a user process to the background?
   1. You can use the Ctrl+z key combination and the bg command.
9. The at command is used to  .
   1. schedule processes to run at a single instance in the future
10. What command is used to view and modify user jobs scheduled to run with cron?
    1. crontab
11. Every process has a process ID and a   .
    1. parent process ID
12. The killall command terminates   .
    1. all instances of a process with the same name
13. Nice values are used to affect process priorities using a range between   .
    1. –20 and 19
14. What is the name given to a process not associated with a terminal?
    1. daemon process
15. To kill a process running in the background, you must place a % character before its process ID. False
16. What kill level signal cannot be trapped?
    1. 9
17. A runaway process that is faulty and consuming mass amounts of system resources   .
    1. is a rogue process
18. When you run the ps command, how are daemon processes recognized?
    1. There is a question mark in the TTY column.
19. Which command is used to gain real-time information about processes running on the system, with the most processor-intensive processes appearing at the beginning of the list?
    1. top
20. Which command can be used to see processes running in the background?
    1. jobs

Chapter 10

**Review Questions:**

1. The process of sending print jobs from the print queue to the printer is called  .

* 1. printing

1. You can clear a log file simply by redirecting nothing into it. True
2. When a printer is disabled,  .
   1. the print queue accepts jobs into the print queue and holds them there until the printer is enabled again
3. What is the name used to describe a user providing a user name and password to log in to a system?
   1. authentication
4. Which command can you use to lock a user account?
   1. usermod –L username
5. Which command can be used to alter the primary group associated with a given user temporarily?
   1. newgrp
6. Which command can be used to send a print job to the default printer named Printer1? (Choose all that apply.)
   1. lp –d Printer1 file
   2. lp file
7. What is the name of the file that contains a listing of all users on the system and their home directories?
   1. /etc/passwd
8. UIDs and GIDs are unique to the system and, once used, can never be reused. False
9. What is the name of the utility used to rotate log files?
   1. logrotate
10. You can lock a user account by changing the default login shell to an invalid shell in /etc/passwd. True
11. When a printer is rejecting requests,  .
    1. the print queue does not accept jobs and sends a message to the user noting that the printer is unavailable
12. When referring to the /etc/rsyslog.conf file,   specifies information from a certain area of the system, whereas   is the level of importance of that information.
    1. facility, priority
13. Most log files on the system are found in which directory?
    1. /var/log
14. Which file contains default information such as UID and GID ranges and minimum password length to be used at user creation?
    1. /etc/login.defs
15. What command can you use to view journald log entries on a system that uses Systemd?
    1. journalctl
16. Which command would you use to unlock a user account?
    1. usermod –U username
17. Along with a listing of user accounts, the /etc/passwd file contains information on account expiry. False
18. You use lpstat and determine that a user named User1 has placed two large print jobs in the queue for Printer1 that have yet to start printing. They have print job IDs of Printer1-17 and Printer1-21, respectively. Which command would you use to remove these two jobs from the print queue?
    1. cancel Printer1-17 Printer1-21
19. Which command is used to delete a user account?
    1. userdel username

Chapter 11

**Review Questions:**

1. Most source code is available on the Internet in tarball format. True
2. Which dump level indicates a full backup?
   1. 0
3. Which filename extension indicates a tarball?
   1. .tar.gz
4. Files that have been compressed using the compress utility typically have the   extension.
   1. .Z
5. The bzip2 and gzip utilities use similar compression algorithms. False
6. When compiling source code into a binary program, which command does the compiling using the GNU C Compiler?
   1. make
7. The -9 option to the gzip command results in a higher compression ratio. True
8. You have created a full backup and four incremental backups. In which order must you restore these backups?
   1. 0, 1, 2, 3, 4
9. Which of the following commands extracts an archive?
   1. cpio –vicdu –I /dev/fd0
10. The Debian Package Manager (DPM) is the default package manager used by Fedora 20. False
11. Which of the following commands can be used to list the files contained within an installed RPM package?
    1. rpm –ql packagename
12. Which of the following command can be used to remove the test DPM package, including any test configuration files?
    1. apt-get purge test
13. To install a new program from RPM software repositories on the Internet, you can use the yum update programname command. False
14. Which file contains full and incremental back-up information for use with the dump/restore utility?
    1. /etc/dumpdates
15. Which of the following represents the first nonrewinding SCSI tape device on a system?
    1. /dev/nst0
16. Which option to the dpkg command can be used to list the files that comprise a package?
    1. –L
17. Which option to the rpm command can be used to remove a package from the system?
    1. –e
18. Which of the following commands creates an archive?
    1. tar –zcvf /dev/st0 \*
19. When compiling source code into a binary program, which command performs a system check and creates the Makefile?
    1. ./configure
20. Which of the following commands can be used to search for packages that contain the word “oobla” on RPM software repositories?
    1. yum search oobla

Chapter 12

**Review Questions:**

1. A subnet mask is used to differentiate the host portion from the network portion in a TCP/IP address. True
2. Which Windows program is often used to connect to a Linux server via SSH?
   1. Putty
3. Stand-alone daemons are started on demand using inetd or xinetd. False
4. Which file stores the TCP/IP addresses of the DNS servers used to resolve host names if no DNS servers are specified within the network configuration file for the NIC?
   1. /etc/resolv.conf
5. To test DNS configuration by resolving a host name to an IP address, which command or commands can you use? (Choose all that apply.)
   1. nslookup *hostname*
   2. dig *hostname*
6. Which two commands can be used to modify the route table on a Linux computer? (Choose two answers.)
   1. route
   2. ip
7. Which file holds the methods to be used and the order in which they will be applied for host name resolution?
   1. /etc/nsswitch.conf
8. What are two means available to resolve a host name to the appropriate TCP/IP address? (Choose two answers.)
   1. DNS
   2. /etc/hosts
9. SSH encrypts all traffic that passes across the network, whereas telnet does not. True
10. What devices are used to transfer information from one network to another?
    1. routers
11. Which of the following are graphical remote administration technologies? (Choose all that apply.)
    1. ssh
    2. VNC
12. The daemons associated with network services listen for network traffic associated with a particular  .
    1. port
13. The TCP/IP address of 127.0.0.1 is also referred to as the  .
    1. loopback address
14. The line that configures the host name for the computer at boot time can be found in /etc/hostname. True
15. Which command would be used to activate the NIC aliased as eth0?
    1. ifup eth0
16. Which of the following port numbers is associated with telnet?
    1. 23
17. Which file would you modify to permanently change the TCP/IP address of the first wired NIC on a Fedora 20 system?
    1. /etc/sysconfig/network-scripts/ifcfg-eth0
18. Before a computer can use a router, with what configuration information must it be provided?
    1. default gateway
19. Which of the following are stand-alone daemons? (Choose all that apply.)
    1. Apache (httpd)
    2. DNS (named)
20. Which of the following utilities can be used to check TCP/IP configuration and test network connectivity? (Choose all that apply.)
    1. ifconfig
    2. ping
    3. netstat –i