

**QUESTION NO: 1**

You work as a Network Administrator for McNeil Inc. The company has a Linux-based network. A printer is configured on the network. You want to remove a file from a print queue. Which of the following commands will you use to accomplish this?

- A. LPR
- B. LPQDEL
- C. LPRM
- D. LPQ

**Answer: C**

**Explanation:**

The LPRM command is used to remove a file from a print queue.

Answer option D is incorrect. The LPQ command reports the status of a print queue.

Answer option A is incorrect. The LPR command is used to submit a file for printing.

Answer option B is incorrect. There is no command such as LPQDEL in Linux.

**QUESTION NO: 2**

You are a newly appointed Red Hat Technician for company Inc. The company has a Linux-based network. You want to install a package named httpd on your Linux system. Before installing the package, you want to get the list of those packages that httpd depends on. Which of the following commands will you use to accomplish the task?

- A. rpm deplist httpd
- B. yum deplist httpd
- C. yum list httpd
- D. rpm -qR httpd

**Answer: B**

**Explanation:**

If the package is not yet installed, the yum deplist httpd command is used to get the list of packages that httpd depends on. Answer option C is incorrect. The yum list httpd command can be used to list various information about available packages. For example, it lists all available and installed packages and all packages with updates available in the yum repositories.

Answer option D is incorrect. If the package is already installed, the rpm -qR httpd command is used to get the list of packages that this package depends on.

Answer option A is incorrect. This command is incorrect. The deplist option is not used with the rpm command.

**QUESTION NO: 3**

You work as the Network Administrator for McNeil Inc. The company has a Linux-based network. You are working as a root user on Red Hat operating system. You are currently running a program named My\_program. You are getting some error messages while executing the program. You want to redirect these error messages to a file named file2 rather than being displayed on the screen.

Which of the following tools should you use to accomplish the task?

- A. My\_program >> file2
- B. My\_program 2> file2
- C. My\_program 2>> file2
- D. My\_program > file2

**Answer: B**

**Explanation:**

This command will execute a program named My\_program and whatever errors are generated while executing that program will all be added to a file named file2 rather than being displayed on the screen.

What is redirection of STDIN, STDOUT, STDERR in Linux?

Redirection means diverting data from their normal destination to another. Whenever a program is executed on terminal some output is displayed at the shell prompt. In case a user does not want that output to appear in the shell window, the user can redirect it elsewhere. The user can redirect the output into a file, printer, etc.

Not only the output of programs is redirected, but also input of a program and error messages are redirected to a file.

Common Redirection operators are as follows:

Redirection Operators	Description
command > file	It directs standard output of command to a file.
command >> file	It appends standard output of command to a file.
command < file	It sends a file as input to command.
command 2> file	It redirects error messages from command to a file.

Answer option D is incorrect. This command will direct the standard output of My\_program to file2.

Answer option A is incorrect. This command will append the standard output of My\_program to file2.

Answer option C is incorrect. This command cannot be applied in this scenario.

**QUESTION NO: 4**

Which of the following key-combinations is used to redo a change undone by a u command in vim?

- A. Ctrl-w, Arrow
- B. Ctrl-w, s
- C. Ctrl-r
- D. Ctrl-w, v

**Answer: C**

**Explanation:**

The Ctrl-r key-combination is used to redo a change undone by a u command in vim. You can go back in time with the undo command. You can then go forward again with the redo command. If you make a new change after the undo command, the redo will not be possible anymore.

Answer options B and D are incorrect. The Ctrl-w, s and Ctrl-w, v key-combinations are used to view a file in two windows in a single vim screen. Ctrl-w, s splits the screen horizontally and Ctrl-w, v splits the screen vertically.

Answer option A is incorrect. The Ctrl-w key-combination with an arrow key is used to jump from one window to another. This will move you to the next window in whichever direction the arrow would normally move your cursor.

**QUESTION NO: 5**

You work as the Network Administrator for Perfect solutions Inc. The company has a Linux-based Network. You are working as a root user. You want to know what the day will be on 20 July 2010. Which of the following commands should you use to accomplish this task?

- A. cal
- B. cal 20 July
- C. cal 7 2010
- D. date

**Answer: C**

**Explanation:**

The cal 7 2010 command will display the calendar of July 2010.

What is the cal command?

The cal command prints an ASCII calendar of the current month.

Syntax: cal [month] [year]

Given a month and year as arguments, cal displays the calendar for that particular month of the given year.

When a single numeric argument (such as 2005) is given, cal will display a calendar for the given year. Always use a fourdigit year. For example, the command cal 05 will display the calendar for

the year 05, not the year 2005.

Answer option B is incorrect. The `cal 20 July` command will display only the month and year, and not the date.

Answer option A is incorrect. The `cal` command will display the calendar of the current month.

Answer option D is incorrect. The `date` command will display the current date and time of the system.

## QUESTION NO: 6

Which of the following commands is used to access Windows resources from Linux workstation?

- A. `rsync`
- B. `mutt`
- C. `scp`
- D. `smbclient`

**Answer: D**

### Explanation:

`smbclient` is a command-line tool that provides access to SMB/CIFS shares.

What is the `smbclient` command?

`smbclient` is a command-line tool that provides access to SMB/CIFS shares. `smbclient` is a samba client with an "ftp like" interface. It is a useful tool to test connectivity to a Windows share. It can be used to transfer files, or to look at share names. In addition, it has the ability to backup and restore files from a server to a client and visa versa.

Example:

```
#smbclient -L server1
```

The above command will list all shares on `server1`.

Some useful options are as follows:

OPTION	DESCRIPTION
-D	It sets the SMB domain of the username.
-u	It specifies username, and sets the SMB username of username and password.
-H	This parameter suppresses the normal password prompt from the client to the user accessing a service that does not require a password.

Answer option C is incorrect. `scp` copies files between hosts on the Linux network.

Answer option A is incorrect. `rsync` is a fast and extraordinarily versatile file copying tool. It can copy locally, to/from another host over any remote shell or to/from a remote `rsync` daemon.

What is `rsync`?

In computing, `rsync` is a software application for Unix systems. It synchronizes files and directories from one location to another while minimizing data transfer using delta encoding. It can copy or display directory contents and copy files, optionally using compression and recursion.

In daemon mode, `rsync` listens to the default TCP port of 873, serving files in the native `rsync`

protocol or via a remote shell such as RSH or SSH. In the latter case, the rsync client executable must be installed on both the local and remote hosts.

Answer option B is incorrect. mutt is a small but very powerful text based program for reading electronic mail under Linux operating systems.

### QUESTION NO: 7

You want to temporarily change your primary group to another group of which you are a member. In this process, a new shell will be created, and when you exit the shell, your previous group will be reinstated. Which of the following commands will you use to accomplish this task?

- A. chmod
- B. newgrp
- C. chgrp
- D. chown

**Answer: B**

#### Explanation:

According to the scenario, you will use newgrp command to accomplish the task. The newgrp command is used to temporarily change the primary group of a user into another group of which that user is a member. In this step, a new shell will be created, and when that user will exit from the shell, his previous group will be reinstated. If no group is specified, the GID is changed to the login GID.

Answer option C is incorrect. John will not use the chgrp command to accomplish his task. The chgrp (from change group) command is used by unprivileged users to change the group associated with a file. Unlike the chown command, chgrp allows regular users to change groups, but only to one of which they are a member. The general syntax of the chgrp command is as follows:

```
chgrp group target1 [target2 ..]
```

The group parameter indicates the new group with which the targets should be associated.

The target1 parameter indicates the files or directories for which the change should be made.

The target2 parameter indicates the optional additional files or directories for which the change should be made.

For example:

```
[axl@asterisk1 axl]$ls -l ttt
-rw-r--r-- 1 gbecker staff 545 Nov 04 2004 ttt

[axl@asterisk1 axl]$chgrp system ttt

[axl@asterisk1 axl]$ls -l ttt
-rw-r--r-- 1 gbecker system 545 Nov 04 2004 ttt
```

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The above command changes the group associated with ttt to 'system', provided the executing user is a member of that group.

Answer option D is incorrect. John will not use the chown command to accomplish his task. The

chown command is used to change the user and/or group ownership of each given file as specified by the first non-option argument as follows: if only a user name (or numeric user ID) is given, that user is made the owner of each given file, and the file's group is not changed.

If the user name is followed by a colon and a group name (or numeric group ID), with no spaces between them, the group ownership of the files is changed as well.

The syntax of the chown command is as follows: `chown [-R [ -H | -L | -P ]] [ -h ] owner[:group] file`

...

Option	Description
-H	If the -R option is specified, symbolic links on the command line are followed. Symbolic links encountered in the tree traversal are not followed.
-L	If the -R option is specified, both symbolic links on the command line and symbolic links encountered in the tree traversal are followed.
-P	If the -R option is specified, no symbolic links are followed.
-R	If file designates a directory, chown recursively changes the owner and group of each file in the directory at that point.
-h	Change the owner and group of a symbolic link instead of the file pointed to by the symbolic link.

Answer option A is incorrect.

The chmod command is used to change the access mode of a file. The syntax of the command is: `chmod who=permissions filename`

Here, "who" refers to the owner of the file, group members, or other users, and permissions refers to "rwx".

For example, `chmod 755 File.txt` will give all access permissions to the owner and the read and execute permissions to the group members and other users.

## QUESTION NO: 8

Fill in the blank with the required permission to complete the statement below. In order to make a script executable in a Linux computer, you must assign the \_\_\_\_\_ permission to the script file.

A. execute

**Answer: A**

### Explanation:

In order to run the script, you are required to add the execute permission to the script file. The permission can be assigned through the chmod command.

What is the chmod command?

The chmod command is used to change file access permissions in Linux.

Syntax:

`chmod [option] [mode] <file1, file2, ...>`

Option: The following is a list of some important options that can be provided with the command:

Option	Description
-c, --changes	Provides information when a change is made.
-f, --silent, --quiet	Suppresses most error messages.
-R, --recursive	Changes files and directories recursively.
--help	Displays the help of the command.
--version	Displays version information of the command.



Mode: Mode is written in the following format:

[ ugoa ] [+|=] [ rwxXstugo ]

The combination of ugoa specifies the users for whom the file access permissions will be changed. In ugoa, u is for the user who owns the file, g is for other users in the file group, o is for other users not in the file group, and a is for all users.

The operator + adds the specified permissions to the existing permissions of each file. The - operator removes, and the = character specifies that the specified permissions are the only permissions for that file.

The combination of rwxXstugo is permission type. In rwxXstugo, r is for read, w is for write, x is for execute, X is to execute only if the file is a directory or already has execute permission for some user, s is to set user or group

ID on execution, t is to save program text on swap device, u are the permissions that the user who owns the file currently has for it, g are the permissions that other users in the file group have for the file, and o are the permissions that other users not in the file group have for the file.

### QUESTION NO: 9

You work as a Network Administrator for McNeil Inc. The company has a Linux-based network. David, a Sales Manager, wants to know the name of the shell that he is currently using. Which of the following commands will he use to accomplish the task?

- A. ECHO \$shell
- B. RM \$shell
- C. MV \$shell
- D. LS \$shell

**Answer: A**

### Explanation:

In order to know the name of the current shell, he will run the following command:

ECHO \$shell

The command line interpreter in Linux is known as the shell. When a user runs a command, the shell interprets, processes, and executes the command and provides an output to the user. Linux comes with quite a few shells such as Bourne

Shell, Bourne Again Shell (BASH), C Shell, Korn Shell, etc. Bash is the most popular shell used by Linux users.

What is BASH?

The Bourne Again Shell (BASH) is a command language interpreter for the GNU's Not Unix (GNU) operating system. The following files are used to configure BASH:

File	Description
<code>.bash_profile</code>	This is the login initialization file for BASH.
<code>.bashrc</code>	This file is used by BASH for initialization. The global initialization file is located at <code>/etc/bashrc</code> . This file is located in a user's home directory.
<code>.bash_logout</code>	This file is used to perform tasks when a user logs out. This file is located in a user's home directory.

**QUESTION NO: 10**

Which of the following text editing tools can be used to edit text files without having to open them?

- A. less
- B. sed
- C. vi
- D. more

**Answer: B**

**Explanation:**

The Unix utility sed (stream editor) is a text editing tool that can be used to edit text files without having to open them. This utility parses text files and implements a programming language which can apply textual transformations to such files.

It reads input files line by line

( sequentially ), applying the operation which has been specified via the command line (or a sed script), and then outputs the line.

Answer option D is incorrect. The more command is used to view (but not modify) the contents of a text file on the terminal screen at a time.

The syntax of the more command is as follows: more [options] file\_name

Where,

Option	Description
-num	It specifies an integer, which is the screen size (in lines).
-d	more will prompt the user with the message "Press space to continue, 'q' to quit," and will display "Press ? for instructions," instead of hiding the ball when an illegal key is pressed.
-f	more treats "f" as a special character, and assumes after one line that contains a form feed. The -f option prevents this behavior.
-l	It causes more to count logical, rather than screen lines (i.e., long lines are not folded).
-u	It suppresses underlining.
+/	It specifies a string that will be searched for before each file is displayed.
+num	more starts file at line number num.

Answer option A is incorrect. The less command is used to view (but not change) the contents of a text file, one screen at a time. It is similar to the more command. However, it has the extended capability of allowing both forward and backward navigation through the file. Unlike most Unix text editors/viewers, less does not need to read the entire file before starting; therefore, it has faster load times with large files.

The command syntax of the less command is as follows: less [options] file\_name

Where,

Option	Description
-G	Highlights just the current match of any searched string
-I	Performs case-insensitive searches
-M	Shows more detailed prompt, including file name
-N	Shows line numbers
-S	Disables line wrap

Answer option C is incorrect. The vi editor is an interactive, cryptic, and screen-based text editor used to create and edit a file. It operates in either Input mode or Command mode. In Input mode, the vi editor accepts a keystroke as text and displays it on the screen, whereas in Command mode, it interprets keystrokes as commands. As the vi editor is case sensitive, it interprets the



same character or characters as different commands, depending upon whether the user enters a lowercase or uppercase character.

When a user starts a new session with vi , he must put the editor in Input mode by pressing the "I" key. If he is not able to see the entered text on the vi editor's screen, it means that he has not put the editor in Insert mode. The user must change the editor to Input mode before entering any text so that he can see the text he has entered.

#### QUESTION NO: 11

Which of the following commands will you run to do case-sensitive search for files named foobar.png?

- A. locate -name foobar.png
- B. find -iname foobar.png
- C. grep-name foobar.png
- D. find -name foobar.png

**Answer: D**

#### Explanation:

You will use find -name foobar.png command to do case-sensitive search for files named foobar.png.

What is the find command?

The find command can perform a search based on a variety of search limitations. It searches through one or more directory tree(s) of a filesystem, locating files based on some user-specified criteria. By default, find returns all files in the current working directory. Further, find allows a user to specify an action to be taken on each matched file.

Thus, it is an extremely powerful command for applying actions to many files.

The find command can be used with a wild card (\*), but it works best when we know the name of the file or directory we are looking for.

The find command can search your system for files that comply with certain numeric criteria, such as the size of the file (-size), the number of links to the file (-links), the date of the last change to the files data (-mtime), or the date of the last time the file was read (-atime). All these criteria accept a numeric value. When a numeric value is provided to find, it looks for an exact match, more than the number, or less than the number.

Answer option B is incorrect. The find -iname foobar.png command will do case-insensitive search for files named foobar.png.

Answer option C is incorrect. The grep-name foobar.png is an invalid command.

What is the grep command?

The grep command is used to search for a specific pattern of text in a file. It helps administrators in searching large amounts of text for a certain error message or name.

Answer option A is incorrect. The locate -name foobar.png is an invalid command.

What is the locate command?

The locate command is used to search for matching files in a database that is usually updated daily by a cron job. On the forthcoming Linux operating systems, this command is usually replaced by the slocate command, which stores permissions as well as paths and thus prevents users from prying into directories. One more advantage of the locate command is that it matches against any part of a pathname, not just the file itself.

#### QUESTION NO: 12

You work as the Network technician for McNeil Inc. The company has a Linux-based Network. You are working on the Red Hat operating system. You want to remove some write protected files and directories. Which of the following commands should you use to accomplish this task?

- A. `rm -rf`
- B. `rm -f`
- C. `rmdir`
- D. `rm`

**Answer: A**

#### Explanation:

The `rm -rf` command recursively removes directories and its contents, ignoring warnings about removing write-protected files and directories.

Answer option B is incorrect. `rm -f` removes only files forcibly not a directory. To remove a directory and its contents forcibly, use `-r` in combination with `-f` with the `rm` command.

Answer option C is incorrect. The `rmdir` command is used to remove an empty directory.

Answer option D is incorrect. `rm` with no arguments deletes files.

#### QUESTION NO: 13

Which of the following options is used with `aspell` to specify the location of the main word list?

- A. `d,--master=string`
- B. `-p,--personal=file`
- C. `--jargon=string`
- D. `--dict-dir=dir`

**Answer: D**

#### Explanation:

The following options may be used with the `aspell` command to control which dictionaries to use and how they behave:

Options	Description
<code>-d, --master=string</code>	If this option is specified then Aspell will either use this dictionary or die.
<code>-dict-dir=dir</code>	It is the location of the main word list.
<code>-l, --lang=string</code>	It specifies the language to use, it follows the same format of the LANG environmental
<code>-s, --size=string</code>	It specifies the preferred size of the word list.
<code>--word-list-path=path</code>	It searches path for word list information files.

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**QUESTION NO: 14**

Which ftp client command allows you to upload multiple files simultaneously using the "\*" wildcard?

- A. mput
- B. mget
- C. put D. get

**Answer: A**

**Explanation:**

The mput command is used to upload multiple files simultaneously.

Answer option C is incorrect. The put command uploads one file each time you use the command. It is not used to upload multiple files at a time.

Answer option D is incorrect. The get command is used to download one file at a time.

Answer option B is incorrect. The mget command is used to download multiple files at a time. It is not used to upload multiple files.

**QUESTION NO: 15**

Which of the following commands copies files between hosts on a network and uses the same authentication as ssh, and will ask for passwords or passphrases if they are needed for authentication?

- A. scp
- B. rcp
- C. cp
- D. mv

**Answer: A**

**Explanation:**

The scp command copies files between hosts on a network. It uses ssh for data transfer, and uses the same authentication and provides the same security as ssh. Unlike rcp, scp will ask for passwords or passphrases if they are needed for authentication. Any file name may contain a host and user specification to indicate that the file is to be copied to/from that host. Copies between two

remote hosts are permitted.

Answer option B is incorrect. The rcp command copies files between machines. The rcp command does not prompt for passwords; it uses Kerberos authentication when connecting to rhost.

Answer option C is incorrect. The cp command copies files and directories. It is generally used to make a backup copy of a file or to copy a file from one directory to another.

Answer option D is incorrect. The mv command moves files and directories from one directory to another or renames a file or directory.

## QUESTION NO: 16

John works as a Network Administrator for Perfect Solutions Inc. The company has a Linux-based network. John is working as a root user on the Linux operating system. He wants to break a data.txt file, 200MB in size, into two files in which the size of the first file named data.txt.aa should be 150MB and that of the second file named data.txt.ab should be 50MB. To accomplish his task and to further delete the data.txt file, he enters the following command: `split --verbose -b 150m data.txt data.txt. ; rm -vf data.txt`

Which of the following commands can John use to join the splitted files into a new data.txt file?

- A. `vi data.txt.*`
- B. `less data.txt.* > data.txt`
- C. `cat data.txt.* > data.txt`
- D. `vi data.txt.* > data.txt`

**Answer: C**

### Explanation:

The `cat data.txt.*` command will display both the splitted files, and the `>` command will redirect the output into a new data.txt file.

What is the cat command?

The concatenate (cat) command is used to display or print the contents of a file.

Syntax: `cat filename`

For example, the following command will display the contents of the `/var/log/dmesg` file: `cat /var/log/dmesg`

Note: The more command is used in conjunction with the cat command to prevent scrolling of the screen while displaying the contents of a file.

What is `>` command?

The `>` command is used for storing the output generated by different commands. It creates a file specified to store the output. If the specified file already exists, it overwrites that file.

Answer option A is incorrect. This command will open a new file data.txt.\* into the vi editor.

Answer option D is incorrect. This command will give the vi editor a warning "output is not to a terminal" since the vi terminal cannot be redirected into the data.txt file.

Answer option B is incorrect. The less command displays only the first file data.txt.aa, and the `>`

command redirects the output into the data.txt file. Hence, John will not get the desired output using this command.

**QUESTION NO: 17**

Mark is a newly appointed Network Technician for McNeil Inc. The company has a Linux-based network. He is working on the Red Hat operating system. He wants to sort a file named marketing.txt in the reverse alphabetical order. Which of the following commands should Mark use to accomplish this task?

- A. sort -u marketing.txt
- B. sort marketing.txt
- C. sort -n marketing.txt
- D. sort -r marketing.txt

**Answer: D**

**Explanation:**

This command will run sort on the file marketing.txt and sort the file in the reverse alphabetical order.

Answer option B is incorrect. sort with no options is used to sort file alphabetically. It will not sort the file in the reverse alphabetical order.

Answer option C is incorrect. The -n option used with the sort command sorts the text numerically, instead of by characters.

Answer option A is incorrect. The -u option with sort removes duplicate lines from the output.

**QUESTION NO: 18**

Which of the following commands is used to securely copy files from one host to another over the network?

- A. ls
- B. cat
- C. mutt
- D. scp

**Answer: D**

**Explanation:**

The scp command is used to copy files from one host to another over the network.

What is the scp command?

The scp command is used to copy files over ssh connections. This is pretty useful if a user wants to transport files between computers, for example, to backup a file. The scp command uses the

ssh command to copy files over the network.

Syntax:

# scp [options] source destination

Where, source refers to the file which a user wants to copy from his current computer/directory, and destination refers to the home directory of the remote system where a user wants to copy the file.

Some important options used with the scp command are as follows:

OPTION	DESCRIPTION
-r	This option specifies that scp should copy directories recursively. It copies all the files & subdirectories, plus the contents of the subdirectories themselves, etc.
-p	It tells scp to preserve file attributes and timestamps.
-C	It is used to compress data stream.

Answer option A is incorrect. The ls command in Linux lists information about files (the current directory by default).

Answer option C is incorrect. The mutt command is used to manage email within a text only environment.

Answer option B is incorrect. The cat command is used to join multiple files together and display the result on the screen.

#### QUESTION NO: 19

Fill in the blank with the appropriate tool. \_\_\_\_\_ is a public domain collection of tools to allow Unix systems to manipulate MS-DOS files: read, write, and move around files on an MS-DOS file system.

A. mtools

**Answer: A**

#### Explanation:

Mtools is a public domain collection of tools to allow Unix systems to manipulate MSDOS files: read, write, and move around files on an MS-DOS filesystem. Mtools are typically used to manipulate FAT formatted floppy disks. Each program attempts to emulate the MS-DOS equivalent command, these are different from Windows NT/2000 commands.

#### QUESTION NO: 20

Which of the following commands will you use to list all local and remote printers attached to your computer?

A. lpq

B. lpstat -d



- C. lpstat -t
- D. lpr

**Answer: C**

**Explanation:**

The lpstat -t command lists all local and remote printers attached to your computer.

Answer options D and B are incorrect. The lpr and lpstat -d commands show the status of the default printer.

Answer option A is incorrect. The lpq command lists all jobs currently printing on the default printer.

**QUESTION NO: 21**

Which of the following files is the default configuration file of XDM (X Window Display Manager)?

- A. /etc/X11/xdm/xdm-config
- B. \$HOME/.Xauthority
- C. /usr/bin/xdm-config
- D. /usr/bin/xterm

**Answer: A**

**Explanation:**

The /etc/X11/xdm/xdm-config file is the default configuration file of XDM. The X Window Display Manager (XDM) is the default display manager for the X Window System. XDM is distributed as part of XFree86 and is configured by a series of files located in /etc/X11/XDM. Some of the important files of XDM are given below in the list:

Xaccess: It is used to control inbound requests from remote hosts.

Xresources: This file holds configuration information for XDM resources and the graphical login screen. It can be edited to modify the appearance of the XDM login screen. Xservers: This file is used to associate the X display names with either the local X server software or a foreign display such as an X terminal.

Xsession: This file contains the script XDM launches after a successful login.

Xsetup\_0: This file defines how XDM will open. It is a script started before the graphical login screen.

It often includes commands to set colors, display graphics, or run other programs. This script is executed as root.

XDM-config: This file is used to configure XDM configuration resources.

Answer option B is incorrect. \$HOME/.Xauthority is the user authorization file where XDM stores keys for clients to read.

Answer option D is incorrect. The /usr/bin/xterm file is the default session program of XDM.

Answer option C is incorrect. It is not a valid XDM configuration file.

**QUESTION NO: 22**

Which of the following commands is used to append the list of files in the /tmp directory to an existing file named deletelater.txt?

- A. ls /tmp > deletelater.txt
- B. ls deletelater.txt /tmp
- C. ls /tmp deletelater.txt
- D. ls /tmp >> deletelater.txt

**Answer: D**

**Explanation:**

The ls command is used to list files on a Linux computer. The syntax of the ls command is as follows:

ls [option] [directory name]

Several options are used with the ls command. Following is a list of some important options:

Options	Description
-a	Lists all entries including hidden files.
-d	Lists only the name of a directory and its contents.
-R	Lists the contents of subdirectories recursively.
-r	Lists filenames reverse sorted.

For example, the following command displays all the files (including hidden files) in the /home directory and the contents in the subdirectories:

What is >> command?

The >> command is used for storing the output generated by different commands. It creates a file specified to store the output. If the specified file already exists, it appends that file.

Answer option A is incorrect. The > command is used for storing the output generated by different commands. It creates a file specified to store the output. If the specified file already exists, it overwrites that file.

Answer options C and B are incorrect. Improper syntax has been followed in these answer options.

**QUESTION NO: 23**

You work as a Technician for Net World Inc. The company has a Linux-based network. You have configured a file server on the company's network. You want to summarize disk usage of each file in a particular directory on the file server. Which of the following commands will you use?

- A. du
- B. fsck

- C. df
- D. dfck

**Answer: A**

**Explanation:**

The du command is used to summarize disk usage. The du command displays the number of blocks used for files. If the File parameter specified is actually a directory, the disk usage of all files within the directory are summarized. If no

File parameter is provided, the du command uses the files in the current directory.

Answer option C is incorrect. The df command reports information about space on file systems.

Answer option B is incorrect. The fsck command checks file system consistency and interactively repairs the file system.

Answer option D is incorrect. The dfck command checks and repairs two file systems simultaneously on different drives.

**QUESTION NO: 24**

You work as the Network Administrator for Perfect Solutions Inc. The company has a Linux-based network. You are a root user on the Red Hat operating system. You want to keep an eye on the system log file /var/adm/messages. Which of the following commands should you use to read the file in real time?

- A. tail -f /var/adm/messages
- B. tail /var/adm/messages
- C. cat /var/adm/messages
- D. tail -n 3 /var/adm/messages

**Answer: A**

**Explanation:**

Using the -f option causes tail to continue to display the file in real time, showing added lines to the end of the file as they occur.

What is the tail -f command?

The tail command is used to display the last few lines of a text file or piped data. It has a special command line option -f (follow) that allows a file to be monitored. Instead of displaying the last few lines and exiting, tail displays the lines and then monitors the file. As new lines are added to the file by another process, tail updates the display.

This is particularly useful for monitoring log files. The following command will display the last 10 lines of messages and append new lines to the display as new lines are added to messages: tail -f /var/adm/messages

Answer option C is incorrect. The cat command simply shows the content of the file when it was last opened, cat does not continue to show updates of the file.

Answer option D is incorrect. The tail -n 3 /var/adm/messages command is used to show most recent entries in log file but it will not continue to show updates of the log file.

Answer option B is incorrect. The tail command will show the last few lines of the log file, but it will not continue to show updates of the log file.

### QUESTION NO: 25

You work as the Network Administrator for Tech Perfect Inc. The company has a Linux-based network. You are working as a root user on the Linux operating system. You have created a file in the vim text editor. You want to save this file and exit it. Which of the following keys should you use to accomplish the task?

- A. :w
- B. :wq
- C. :q!
- D. :

**Answer: B**

#### Explanation:

creates a command prompt at bottom-left of screen. w will save the file and q will quit from the file. When :wq is used in combination and then the Enter key is pressed, this will save the file and exit it.

Answer option D is incorrect. : enters EX mode. EX mode will open a prompt on the last line of the terminal, and will accept certain keys for commands.

Answer option A is incorrect. :w only saves a file on the disk. To quit from the file after saving its contents, use q after :w.

Answer option C is incorrect. This key is used to quit from the file without saving its contents.

### QUESTION NO: 26

Which of the following commands is used to change file access permissions in Linux?

- A. chown
- B. chmod
- C. chperm
- D. chgrp

**Answer: B**

#### Explanation:

The chmod command is used to change file access permissions in Linux.

Syntax: chmod [option] [mode] <file1, file2, ...>

Option: The following is a list of some important options that can be provided with the command:

Option	Description
-c, --changes	Provides information when a change is made.
-f, --silent, --quiet	Suppresses most error messages.
-R, --recursive	Changes files and directories.
--help	Displays the help of the command.
--version	Displays version information of the command.

Mode: Mode is written in the following format:

[ugoa] [+|=] [rwxXstugo]

The combination of ugoa specifies the users for whom the file access permissions will be changed. In

ugoa, u is for the user who owns the file,

g is for other users in the file group, o is for other users not in the file group, and a is for all users.

The operator + adds the specified permissions to the existing permissions of each file. The - operator

removes, and the = character specifies

that the specified permissions are the only permissions for that file.

The combination of rwxXstugo is permission type. In rwxXstugo, r is for read, w is for write, x is for execute, X is to execute only if the file is a

directory or already has execute permission for some user, s is to set user or group ID on execution, t

is to save program text on swap device,

u are the permissions that the user who owns the file currently has for it, g are the permissions that

other users in the file group have for the

file, and o are the permissions that other users not in the file group have for the file.

Answer option A is incorrect. The chown command is used to change the user or group ownership of

the files specified with the command.

Answer option D is incorrect. The chgrp command is used to change only the group ownership of the

files specified with the command.

What is the chgrp command?

The chgrp (from change group) command is used by unprivileged users to change the group associated with a file. Unlike the chown command, chgrp allows regular users to change groups, but only to one of which they are a member. The

general syntax of the chgrp command is as follows:

chgrp group target1 [target2 ..]

The group parameter indicates the new group with which the targets should be associated.

The target1 parameter indicates the files or directories for which the change should be made.

The target2 parameter indicates the optional additional files or directories for which the change should be made.

For example:

```
[axl@asterisk1 axl]$ls -l ttt
-rw-r--r-- 1 gbeeker staff 545 Nov 04 2004 ttt

[axl@asterisk1 axl]$chgrp system ttt

[axl@asterisk1 axl]$ls -l ttt
-rw-r--r-- 1 gbeeker system 545 Nov 04 2004 ttt
```

itexamworld.c

The above command changes the group associated with ttt to 'system', provided the executing user is a member of that group.

Answer option C is incorrect. There is no such command as chperm in Linux.

## QUESTION NO: 27

You work as a Network Administrator for Rick International. The company has a Linux-based network. A process is running on a server. It is using a lot of processing power. You want the process to use less resources. Which of the following actions will you perform to accomplish the task?

- A. Kill the process and rerun it by using the nice command with the -n 1 switch.
- B. Kill the process and rerun it by using the nice command with the -n 19 switch.
- C. Kill the process and rerun it by using the fg command.
- D. Kill the process and rerun it by using the bg command.

**Answer: B**

### Explanation:

In order to accomplish the task, you will have to kill the process and rerun it by using the nice command to lower the priority of the process.

You will have to run the following command: kill <process Id> : nice <process name> -n 19

The nice command is used to run a process with the desired priority level. The priority level varies from 1 to 19. Level 1 is for the highest priority and level 19 is for the lowest. By default, every process runs with the priority level 10.

Answer option C is incorrect. The fg command is used to run a process in the foreground.

Answer option D is incorrect. The bg command is used to run a process in the background.

Answer option A is incorrect. The -n 1 switch will provide the process the top priority.

## QUESTION NO: 28

Which of the following commands list the configured printers in a Linux network? Each correct answer represents a complete solution. Choose all that apply.

- A. lpstat -a
- B. lpstat -l



- C. lpstat -o
- D. lpstat -r

**Answer: A,B**

**Explanation:**

The lpstat -a, lpstat -l commands list the configured printer in the network.

Answer option D is incorrect. The lpstat -r command shows whether or not the CUPS server is running. Answer option C is incorrect. The lpstat -o command shows the jobs queue on the specified destinations.

**QUESTION NO: 29**

John works as a Network Administrator for Perfect Solutions Inc. The company has a Linux-based network. John is working as a root user on the Linux operating system. He wants to change the group membership of the file foo to group bar. Which of the following commands will he use to accomplish the task?

- A. chgrp foo bar
- B. chgroup bar foo
- C. chgrp bar foo
- D. chgroup foo bar

**Answer: C**

**Explanation:**

According to the scenario, John will use the chgrp bar foo command to accomplish the task. The chgrp (from change group) command is used by unprivileged users to change the group associated with a file. Unlike the chown command, chgrp allows regular users to change groups, but only to one of which they are a member. The general syntax of the chgrp command is as follows:

chgrp group target1 [target2 ..]

The group parameter indicates the new group with which the targets should be associated.

The target1 parameter indicates the files or directories for which the change should be made.

The target2 parameter indicates the optional additional files or directories for which the change should be made.

For example:

The above command changes the group associated with ttt to 'system', provided the executing user is a member of that group.

Answer option A is incorrect. In the chgrp command, first we write the group name and after that, we write the file name. But here just the opposite is written, so this command will not give the desired result.

Answer options D and B are incorrect. There is no such command as chgroup in Linux.

**QUESTION NO: 30**

Which of the following commands is used to view the PDF files in Linux?

- A. ps2pdf
- B. a2ps
- C. pdf2ps
- D. evince

**Answer: D**

**Explanation:**

The evince utility is used to view the PDF files in Linux.

Answer option A is incorrect. The ps2pdf utility creates the PDF files.

Answer option C is incorrect. The pdf2ps utility converts the PDF files to PostScript.

Answer option B is incorrect. The a2ps utility converts text to PostScript and sends it to the print queue or file.

**QUESTION NO: 31**

You work as a Network Administrator for Perfect Solutions Inc. The company has a Linux-based network. You want to view the status of the current processes running on a Linux computer. You also want to append this information into the StatPro.txt file without deleting its content. Which of the following commands will you use to accomplish the task?

- A. ps StatPro.txt
- B. ps >> StatPro.txt
- C. ps | more StatPro.txt
- D. ps > StatPro.txt

**Answer: B**

**Explanation:**

The ps command reports the status of processes that are currently running on a Linux computer. What is >> command?

The >> command is used for storing the output generated by different commands. It creates a file specified to store the output. If the specified file already exists, it appends that file.

**QUESTION NO: 32**

When you remove a user account from your Linux system, the files and directories of this user may still remain on the system. Which of the following commands can you use to remove all items from your Linux system?

Each correct answer represents a complete solution. Choose two.

- A. `userdel -r`
- B. `userdel -f`
- C. `userdel -h`
- D. `userdel -c`

**Answer: A,B**

**Explanation:**

When a user account is removed from a Linux system with the `userdel` command, the user account would get removed but some files and directories of that user may still remain on the system. To remove all items, the `-r` option is used with the `userdel` command.

The `-f` option forcibly removes the user account even if the user is still logged in. It also forces `userdel` to remove the user's home directory or his mail spool even if another user uses the same home directory or if the mail spool is not owned by the specified user.

Answer option C is incorrect. The `-h` option with the `userdel` command displays help messages and then exits.

Answer option D is incorrect. This command is incorrect. The `-c` option is not used with the `userdel` command.

**QUESTION NO: 33**

You work as the Network Administrator for Perfect solutions Inc. The company has a Linux-based Network. You are a root user on the Red Hat operating system. You want to grant ownership of the file `foofile` to a user John. Which of the following commands should you use to accomplish this task?

- A. `chown John foofile`
- B. `chmod John foofile`
- C. `chgrp foofile John`
- D. `chown foofile John`

**Answer: A**

**Explanation:**

This is the correct syntax for granting ownership of `foofile` to John.

What is the `chown` command?

The `chown` command is used to change the ownership of a file. Only root can change the ownership of a file. The `chown` command can be used with the `-R` option to recursively change the

ownership of an entire directory tree.

Syntax:

`chown [-R] newowner filename`

`newowner` The alias or username of the new owner of the file  
`filename` The file whose ownership needs to be changed

Answer option B is incorrect. The `chmod` command is used to change access mode for files and directories.

Answer option D is incorrect. The syntax of this command is not correct. With `chown`, first write the name of the user whom you want to give ownership, then write the filename of the file whose ownership you want to change.

Answer option C is incorrect. The `chgrp` command is used to change Group-ownership not file ownership.

#### QUESTION NO: 34

Which of the following `cp` command parameters copies only when the source file is newer than the destination file or when the destination file is missing?

- A. `-u`
- B. `-l`
- C. `-p`
- D. `-s`

**Answer: A**

#### Explanation:

The `cp -u` command copies only when the source file is newer than the destination file or when the destination file is missing.

Answer option C is incorrect. The `cp -p` command copies the files from source to destination with preserving file attributes, such as timestamps, mode, and ownership.

Answer option B is incorrect. The `cp -l` command links files from source to destination instead of copying.

Answer option D is incorrect. The `cp -s` command makes symbolic links instead of copying.

#### QUESTION NO: 35

Which graphical mail client is the default tool for email and groupware in Red Hat Enterprise Linux?

- A. `mutt`
- B. Evolution

- C. Thunderbird
- D. pidgin

**Answer: B**

**Explanation:**

The default tool for email and groupware in Red Hat Enterprise Linux is called Evolution. Evolution provides not only the email access, but also the ability to maintain a calendar, tasklist and contacts database.

What is Evolution?

Evolution is a full-featured personal and workgroup information management tool for Linux systems, and is the default email client for Red Hat Enterprise Linux. It provides all of the standard email client features, including powerful mailbox management, user-defined filters, and quick searches. Its additional feature is a flexible calendar/scheduler, which allows users to create and confirm group meetings and special events online.

Answer option C is incorrect. Thunderbird is a graphical mail client that offers email, Usenet and rss support but it does not support groupware features. Thunderbird is provided along with Firefox and others as part of the Mozilla suite of application.

What is groupware?

Groupware refers to programs that help users work together collectively while located remotely from each other.

Groupware services can include the sharing of calendars, collective writing, e-mail handling, shared database access, electronic meetings with each user able to see and display information to others, and other activities. Sometimes called collaborative software, groupware is an integral component of a field of study known as Computer-Supported Cooperative Work or CSCW.

Answer options A and D are incorrect. The mutt and pidgin are Non-GUI mail clients.

What is mutt? mutt is a powerful tool for managing email within a text-only environment. This tool is very important to access email even when a graphical interface is not available. Some of its strengths are handling of message threads and flexibility. When mutt sees a series of related messages, it displays each reply under the parent. mutt supports sending of attachments through a mail. The following example describes how a file can be attached to a mail: `echo "Sending an attachment." | mutt -a backup.zip -s "attachment" local@domain.com`

This command will send a mail to local@domain.com with the subject (-s) "attachment", the body text "Sending an attachment.", containing the attachment (-a) backup.zip.

What is Pidgin?

Pidgin is a multi-protocol Instant Messaging client that allows a user to use all of his IM accounts at once. It is a free software that can work with AIM, Gadu-Gadu, Jabber, ICQ, IRC, MSN, SILC, XMPP, Yahoo!, and Zephyr Network. Anyone is free to use it and modify it, but if a user distributes his modifications, he must distribute the modified source code as well.

The license of this communication software is Freeware, i.e. anyone can freely download and use

this communication software.

**QUESTION NO: 36**

Fill in the blank with the appropriate permission to complete the statement below.

The \_\_\_\_\_ command is used to start xsession using the xinit utility.

A. startx

**Answer: A**

**Explanation:**

xinit is a program that allows a user to manually start an X server. The startx script is a front-end for xinit. By default, xinit and startx start an X server on display :0 and then start an xterm on it. When the xterm terminates, xinit and startx kill the X server. In general, xinit and startx can start an arbitrary server and run an arbitrary script. Typically, this script runs a number of programs and a window manager. Arguments immediately following the startx command are used to start a client in the same manner as xinit. For example the startx - -dpi 100 command starts the xsession with 100 dpi.

**QUESTION NO: 37**

Which of the following network diagnostic tools is NOT used in the Linux operating system?

- A. host
- B. dig
- C. ipconfig
- D. ping

**Answer: C**

**Explanation:**

The ipconfig network diagnostic tool is used in the Windows operating system to see IP addresses and MAC addresses, and other related information. It is not used in the Linux operating system. In the place of the ipconfig utility, ifconfig is used in Linux for performing the same task.

Answer option D is incorrect. The ping utility is a network diagnostic tool that checks TCP/IP connectivity on any host. It is used in both Linux and Windows operating systems.

What is the ping utility?

The ping command-line utility is used to test connectivity with a host on a TCP/IP-based network. This is achieved by sending out a series of packets to a specified destination host. On receiving the packets, the destination host responds with a series of replies. These replies can be used to determine whether or not the network is working properly.



Answer option A is incorrect. This is a network diagnostic tool in Linux that perform hostname to IP address translation and vice versa.

Answer option B is incorrect. This is a network diagnostic tool in Linux which is used to perform hostname to IP address translations, and vice versa in greater detail.

### QUESTION NO: 38

Which shell script is the first startup script run when a login shell is started in Linux?

- A. ~/.bashrc
- B. /etc/profile.d
- C. /etc/profile D.  
/etc/bashrc

**Answer: C**

#### Explanation:

The /etc/profile shell script is the first startup script run when a login shell is started. It runs only for the login shell.

What is a Login shell?

A login shell is a shell that is started by login into the system. The login shells' responsibility is to start the non-login shell

and to make sure that environment variables are set so as to ensure that a user can get all the default parameters needed at start-up.

Login shell will set the PATH environment variable, TERM, the UID and GID of the terminal amongst other things. These are the requirements in order to work proficiently. Additionally, the login-shell will set default variable such as USERNAME, HISTSIZE, HOSTNAME, HOME, etc.

Answer option A is incorrect. The ~/.bashrc shell script is the first startup script run when a non-login shell is started.

A non-login shell is a shell started by a user or a program issuing the bash command.

Some non-login shells are as follows:

su

graphical terminals

executed scripts

any other bash instances

Answer options D and B are incorrect. The non-login shells first call ~/.bashrc. The ~/.bashrc calls /etc/bashrc, and then /etc/bashrc calls /etc/profile.d.

**QUESTION NO: 39**

Which of the following commands is used to set down the interface and flush all its addresses?

- A. ifup
- B. ifdown
- C. ifconfig
- D. down

**Answer: B**

**Explanation:**

The ifdown command is used to set down the interface and flush all its addresses. It is possible to let

ifdown check the interface if the interface is still used before setting it down. If the interface is used it may then discard the using processes or refuse setting it down.

To enable this feature, check /etc/sysconfig/network/config file.

Answer option A is incorrect. The ifup command is used to bring up a preconfigured interface for networking. It is usually invoked by the network script at boot time or by the PCMCIA/hotplug system. It can also be used to start interfaces manually on the command line. It activates the link, adds addresses and other parameters and sets up the routes for an interface.

Answer option C is incorrect. The ifconfig commands displays the basic settings of a network device.

Answer option D is incorrect. There is no such command as down.

**QUESTION NO: 40**

You work as the Network administrator for McNeil Inc. The company has a Linux-based network. You are working as a root user on the Linux operating system. You have created a PostScript file on your system. You want to convert this file to a PDF file. Which of the following commands should you use to accomplish the task?

- A. ps2pdf
- B. evince
- C. pdf2ps
- D. enscript

**Answer: A**

**Explanation:**

The ps2pdf utility is used to convert PostScript to a PDF file.

What is a ps2pdf command?

The ps2pdf command creates PDF files. It is used to convert a PostScript file to a PDF file.

There are a number of versions of this program, some are as follows:

VERSION	DESCRIPTION
ps2pdf12	It converts PostScript to PDF 1.2 (Acrobat 3-and-later compatible)
ps2pdf13	It converts PostScript to PDF 1.3 (Acrobat 4-and-later compatible)
ghostscript	

Answer option D is incorrect. The `enscript` utility converts a text to a PostScript format and sends it to a file or the print queue.

Answer option B is incorrect. The `evince` utility is used to view a PDF file, not to create a PDF file. What is the `evince` command?

The `evince` command is a document viewer capable of displaying multiple and single page document formats such as PDF and Postscript.

Syntax: `evince [Options] [Filename]`

Option	Description
-p	The page of the document to display
-f	Run <code>evince</code> in full
-s	Run <code>evince</code> in pre-
-w	Run preview as a previewer

## QUESTION NO: 41

You work as a Network Administrator for McNeil Inc. The company has a Linux-based network. You are a root user on the Red Hat operating system. You want to see all directories and files, including hidden files of your home directory in long listing format. Which of the following command-line utilities would you use to accomplish this task?

- A. `ls -al /root`
- B. `ls`
- C. `ls -s /root`
- D. `ls -h /root`

**Answer: A**

### Explanation:

The `ls -al /root` command lists all the files and directories, including hidden files in the `/root` directory, in long listing format. `/root` is the root user's home directory.

What is the `ls` command?

The `ls` command is used to list files on a Linux computer. The syntax of the `ls` command is as follows:

`ls [option] [directory name]`

Several options are used with the `ls` command. Following is a list of some important options:

Options	Description
-a	Lists all entries including hidden files.
-d	Lists only the name of a directory and
-R	Lists the contents of subdirectories also.
-r	Lists filenames reverse sorted.

For example, the following command displays all the files (including hidden files) in the /home directory and the contents in

the subdirectories:

`ls -aR /home`

Answer option B is incorrect. The `ls` command without arguments lists the file and directory names in the current directory.

Answer option C is incorrect. The `ls -s /root` command shows the size of all files and directories (in blocks, not bytes) that reside in the /root directory.

Answer option D is incorrect. The `ls -h /root` command shows the size of files and directories in "human readable format" (i.e. 19M, 3G, etc).

Answer option C is incorrect. The `pdf2ps` utility is used to convert a PDF file to a PostScript.

## QUESTION NO: 42

You work as the Network Administrator for McNeil Inc. The company has a Linux-based network. You are working a root user on the Red Hat operating system. You want to search for files named `snow.html`, `Snow.html`, `SNOW.html` in the current directory. Which of the following commands should you use to accomplish the task?

- A. `find -iname snow.html`
- B. `find -name snow.html`
- C. `find name snow.html`
- D. `find -i snow.html`

**Answer: A**

### Explanation:

If no path is given, `find` looks in the current directory and its subdirectories. Using the `-i` option tells the `find` command to perform caseinsensitive search for files named `snow.html`. It will show all files named `snow.html`, `Snow.html`, `SNOW.html` in the current directory.

Answer option B is incorrect. This command will only search for files named `snow.html` in the current directory with case-sensitiveness. It will not search for those files named `Snow.html`, `SNOW.html`.

Answer option C is incorrect. This is an incorrect command; it will show an error message.

Answer option D is incorrect. This is also an incorrect command, there should be a name after `-i` in the command.

## QUESTION NO: 43

Which of the following commands is used to make traceroute wait 5 seconds for a response to a packet?

- A. traceroute -w
- B. traceroute -T
- C. traceroute -q
- D. traceroute -r

**Answer: A**

**Explanation:**

The traceroute -w command is used to make traceroute wait 5 seconds (default) for a response to a packet.

What is traceroute?

Traceroute is a route-tracing utility that displays the path an IP packet takes to reach its destination.

It uses Internet

Control Message Protocol (ICMP) echo packets to display the Fully Qualified Domain Name (FQDN) and the IP address of each gateway along the route to the remote host. Traceroute sends out a packet to the destination computer with the TTL field value of 1. When the first router in the path receives the packet, it decrements the TTL value by

1. If the TTL value is zero, it discards the packet and sends a message back to the originating host to inform it that the packet has been discarded. Traceroute records the IP address and DNS name of that router, and sends another packet with a TTL value of

2. This packet goes through the first router, and then times out at the next router in the path. The second router also sends an error message back to the originating host. Now, the process starts once again and

traceroute continues to send data packets with incremented TTL values until a packet finally reaches the target host, or until it decides that the host is unreachable. In the whole process, traceroute also records the time taken for a round trip for each packet at each router.

Answer option B is incorrect. The traceroute -T command uses the TCP/SYN packets for probing.

Answer option C is incorrect. The traceroute -q command sets the number of probe packets per hop.

The default value is 3.

Answer option D is incorrect. The traceroute -r command bypasses the normal routing tables and sends the probe packet directly to a host on an attached network. If the host is not on a directly-attached network, an error is returned. This option can be used to ping a local host through an interface that has no route through it.

**QUESTION NO: 44**

Which of the following directories cannot be placed out of the root filesystem?

Each correct answer represents a complete solution. Choose all that apply.

- A. /sbin
- B. /etc
- C. /lib D.
- /var

**Answer: A,B,C**

**Explanation:**

The following directories cannot be separated from the root filesystem:

- /lib
- /dev
- /etc
- /sbin
- /bin

Answer option D is incorrect. /var can be separated from the root filesystem. Such filesystems are known as optional filesystems. Some of the optional filesystems are as follows:

- /var
- /usr
- /opt
- /home

**QUESTION NO: 45**

You work as a network administrator for company Inc. The company has a Linux-based network. You want to create a file named foobar.zip and put it into a directory named filesdir. Which of the following commands will you use to accomplish the task?

- A. unzip foobar.zip filesdir
- B. zip -r foobar.zip filesdir
- C. tar -tvf foobar.tar
- D. gunzip foobar.zip

**Answer: B**

**Explanation:**

The zip -r foobar.zip filesdir command is used to create a file named foobar.zip and put it into the directory named filesdir. foobar.zip represents the file you are creating and filesdir represents the directory you want to put in the new zip file. The -r option specifies that you want to include all files contained in the filesdir directory recursively.

Answer option A is incorrect. The unzip foobar.zip command is used to extract the contents of a



zip file to the filesdir directory.

Answer option D is incorrect. The `gunzip foobar.zip` command is used to expand the compressed file.

Answer option C is incorrect. The `tar -tvf foobar.tar` command is used to list the contents of a tar file.

#### QUESTION NO: 46

Fill in the blank with the appropriate command to complete the statement below. In order to run the `httpd` process with the highest priority, you will issue the \_\_\_\_\_ command to change the priority level of the `httpd` process.

A. `nice`

**Answer: A**

#### Explanation:

The `nice` command is used to change the priority of a process in the kernel's scheduler.

A niceness of -20 is the highest priority and 19 is the lowest priority. The default niceness for processes is inherited from its parent process, usually 0. For example, when specifying a very low priority, the following command can be entered: `nice -n 19 cc -c *.c &`

The above command runs the `cc` command in the background at a lower priority than the default priority set by the `nice` command.

#### QUESTION NO: 47

Which of the following commands can be used to delete all jobs queued in a printer?  
Each correct answer represents a complete solution. Choose all that apply.

- A. `lprm -a all`
- B. `lprm -all`
- C. `lprm - *`
- D. `lprm -`

**Answer: A**

#### Explanation:

The `lprm -` and `lprm -a all` commands can be used to delete all jobs queued in a printer. The `lprm` command is used to remove the print jobs that have been queued for printing. If no arguments are supplied, the current job on the default destination is cancelled. The command syntax for the `lprm` command is as follows:

```
lprm [-E] [-U username] [-h server[:port]] [-P destination[/instance]] [-] [job ID(s)]
```

where,

Option	Description
-E	Forces encryption when connecting to the server.
-P destination[/instance]	Specifies the destination printer or class.
-U username	Specifies an alternate username.
-h server[:port]	Specifies an alternate server.

Answer options B and C are incorrect. These are not valid lprm command syntaxes.

### QUESTION NO: 48

You work as a Network Administrator for Tech World Inc. The company has a Linux-based network.

The permissions on a file named Report are shown below:

`rwxr--r--`

You want to add a sticky bit to the file. Which of the following commands will you use?

- A. `chmod 2744 report`
- B. `chmod 4744 report`
- C. `chmod 7744 report`
- D. `chmod 1744 report`

**Answer: D**

#### Explanation:

When 1 is added as a prefix to the permission set, it adds the sticky bit to the file permission.

Therefore, in order to accomplish the task, you will have to run the following command: `chmod 1744 report`

What is sticky bit?

The sticky bit is a part of a permission set applied to files or folders. The sticky bit prevents others from deleting files from a folder. When the sticky bit is set on a directory, only the owner or root can unlink (delete) or rename the files in that directory. Without the sticky bit, anyone who is able to write to the directory can delete or rename the files.

Answer option A is incorrect. This will set SGID to the file permission.

Answer option B is incorrect. This will set SUID to the file permission.

Answer option C is incorrect. Although this will add a sticky bit to the file permission, it will also set SGID and SUID to the file permission.

What are SUID and SGID?

Set user ID (SUID) and Set group ID (SGID) are used to set a file to run as something other than the standard. Normally, when a file is executed, it runs as the user who invokes it. Setting a file to SUID or SGID simply requires adding an extra digit to the permissions. Technically, if no digit is used, it assumes a leading 0.

**DigitalsID Settings**

0	Standard: File runs as the user who invokes it.
2	SGID: File runs as a member of its group.
4	SUID: File runs as its owner. <b>itexamworld.c</b>
6	Both SUID and SGID.

**QUESTION NO: 49**

What will be the output of the following command? `echo $(date %M) > date.txt`

- A. It will print a string "date %M".
- B. The current time (Month) will be written in the date.txt file. C.
- The current time (Minutes) will be written in the date.txt file. D.
- It will create a variable \$(date %M).

**Answer: C**

**Explanation:**

The date command with the %M specifier prints the current time (Minutes). Since the output is redirected towards the date.txt file, the current time (Minutes) will be printed in the date.txt file.

**QUESTION NO: 50**

You are a newly appointed technician for company Inc. The company has Linux- based network. You have executed a command `find /home -user joe -group joe` on the terminal. What will this command do?

- A. It will search for files owned by the user joe -group joe anywhere on the system.
- B. It will backup files owned by the user joe -group joe in /home/.
- C. It will display the content of a file that belongs to group joe.
- D. It will search for files owned by the user joe -group joe in /home/.

**Answer: D**

**Explanation:**

When you will execute the command `find /home -user joe -group joe` on the terminal, it will search for files owned by the user joe -group joe in /home/.

What is the find command?

The find command can perform a search based on a variety of search limitations. It searches through one or more directory tree(s) of a filesystem, locating files based on some user-specified criteria. By default, find returns all files in the current

working directory. Further, find allows a user to specify an action to be taken on each matched file.

Thus, it is an extremely powerful command for applying actions to many files.

The find command can be used with a wild card (\*), but it works best when we know the name of the file or directory we are looking for.

The find command can search your system for files that comply with certain numeric criteria, such as the size of the file (-size), the number of links to the file (-links), the date of the last change to the files data (-mtime), or the date of the last time the file was read (-atime). All these criteria accept a numeric value. When a numeric value is provided to find, it looks for an exact match, more than the number, or less than the number.

### QUESTION NO: 51

You work as a Network Administrator for Tech Perfect Inc. The company has a Linux-based network.

There are six files in a directory on your laptop. You want to find out the file types of all the files at a time. Which of the following commands will you use?

- A. fsck
- B. file
- C. mount
- D. init

**Answer: B**

#### Explanation:

You can use the file command to display the file types of all the files in a directory at a time. In order to accomplish the task, you will have to issue the following command:

file \*

What is the file command?

The file command is used to analyze the files specified in the argument.

Syntax:

file <file name1> [<file name2>] [<file name3>] ...

By providing the name of a file as an argument, the file command analyzes the file. The file command supports multiple arguments. The asterix (\*) metacharacter can also be used with the file command.

Answer option C is incorrect. In Linux, the mount command is used to mount and display disks, partitions, and file systems. Mounting refers to the process in which the operating system prepares the media to be read.

Answer option A is incorrect. The File System Check (fsck) command is used to scan all disks and partitions, and it repairs them if required. The fsck command should be run only on an unmounted

file system.

Answer option D is incorrect. The init command is used to switch a Linux computer to different run levels.

### QUESTION NO: 52

Which of the following commands does not save changes before exiting from the VI editor?

- A. :q!
- B. :q
- C. zz
- D. :w

**Answer: A**

#### Explanation:

The :q! command is used to quit from the VI editor without saving.

What is VI?

The VI is a visual interactive text editor that allows a user to create, modify, and store files on a Linux computer. It works in the following modes:

Command: This is the default mode of the command. Various commands can be used in this mode to manipulate the opened text.

Input: In this mode, a user can insert text directly in the text screen area.

Answer option D is incorrect. The :w command is used to write the file.

Answer option C is incorrect. The zz command is used to save the file and quit. This is the easiest way to leave the editor, with only two keystrokes.

Answer option B is incorrect. The :q command is used to quit after saving the file.

### QUESTION NO: 53

Which of the following commands pipes stdout and stderr from cmd1 to cmd2?

- A. cmd2 | cmd1
- B. cmd2 2>&1 | cmd1
- C. cmd1 | cmd2
- D. cmd1 2>&1 | cmd2

**Answer: D**

#### Explanation:

The cmd1 2>&1 | cmd2 command pipes stdout and stderr from cmd1 to cmd2.

Answer option C is incorrect. The cmd1 | cmd2 command pipes stdout from cmd1 to cmd2.

Answer option B is incorrect. The cmd2 2>&1 | cmd1 command pipes the stdout and stderr from

cmd2 to cmd1.

Answer option A is incorrect. The `cmd2 | cmd1` command pipes stdout from cmd2 to cmd1.

## QUESTION NO: 54

You work as the Network Administrator for McNeil Inc. The company has a Linux- based network. You are working as a root user on the Red Hat operating system. Joe is a user in your company. You want to remove Joe's tmp files that are 3 days older. Which of the following command syntaxes should you use to accomplish the task?

- A. `find /tmp -cmin +3 -user Joe -ok rm {} \;`
- B. `find /tmp -ctime +3 user Joe -ok rm {} \;`
- C. `find /tmp -ctime +3 -user Joe -ok rm {} \;`
- D. `find /tmp -cmin +3 user Joe -ok rm {} \;`

**Answer: C**

### Explanation:

This command will prompt you to remove Joe's tmp files that are 3 days older. When the `-ok` option is used with the `find` command it causes `find` to execute the `rm` command once for each /tmp file that is 3 days older. `{}` can be used as a filename placeholder.

The `-ok` option with the `find` command is used to execute a command once for each file that matches the given criteria. This is commonly used in situations such as removing files or renaming files to have a certain extension. The `-ok` option causes `find` to ask for each file before removing it. What is the `find` command?

The `find` command is a versatile method for locating files on a file system. The syntax for this command is as follows:

`find <start directory> -<criteria>`

Some of the important criteria are described in the table below:

Criteria	Description
<code>mmin -x</code>	Searches the files that were modified less than x minutes ago.
<code>mmin +x</code>	Searches the files that were modified more than x minutes ago.
<code>mtime -x</code>	Searches the files that were modified less than x days ago.
<code>mtime +x</code>	Searches the files that were modified more than x days ago.
<code>size n</code>	Searches the files that are n blocks long (512 bytes per block).

What are some numeric criteria that the `find` command uses?

The `find` command can search your system for files that comply with certain numeric criteria. For example, `-ctime`, `-atime`, `-cmin`, `-amin`, etc. The `-ctime` and `-atime` are measured in days and the `-cmin` and `-amin` are measures in minutes.

For example:

`find /tmp -ctime +10`

This command searches for files that are more than 10 days older.



```
find /tmp -cmin +10
```

This command searches for files that are more than 10 minutes older.

What is the purpose of using \; at the end of the find command?

The purpose of using \; at the end of the find command is that when find is used with -exec and -ok the find command uses ; as the delimiting character. Unfortunately ; is also a delimiting character for the bash shell so we must prevent bash from interpreting it. When a character is preceded with a backslash (\), bash instructs it literally, so typing \; at the bash command prompt will send ; to find command after bash has done its interpretation.

Answer option A is incorrect. This command will prompt you to remove Joe's tmp files that are 3 minutes older.

Answer options D and B are incorrect. These are the incorrect command syntaxes.

### QUESTION NO: 55

You work as a Network Administrator for McNeil Inc. The company has a Linux-based network. You are a root user on the Red Hat operating system. You want to know how many words are present in the file named file1.txt. You type the following command on the terminal: `wc file1.txt`. The command displays the following output:

```
40 245 1800 file1.txt
```

How many words are present in the file file1.txt?

- A. 40
- B. 285
- C. 245
- D. 1800

**Answer: C**

#### Explanation:

From the above output, it is clear that 245 words are present in the file file.txt, as the second column represents the number of words present in a file.

### QUESTION NO: 56

Which of the following is NOT true about the inode table in the Linux operating system?

- A. It contains the location information where data is stored in the hard disk.
- B. It contains information about what type of access permission of the file is available to whom.
- C. It contains the last access time, last modification time, however it does not store the last inode change time.
- D. It contains the file type of the specified file.



**Answer: C**

**Explanation:**

The inode table contains the last access time, last modification time as well as the last inode change time of a file.

What type of data is stored in an inode table?

An inode table contains a list of all files in an ext2 and ext3 filesystem. An inode (index node) is an entry in the table, containing information about a file (the metadata). Some important data stored in the inode table are as follows:

The file type (regular file, directory, etc.)

File permissions

Link count: The number of file names associated with the inode number.

The user ID number of file owner and the group ID number of the associated group.

Timestamps, including last access time, last modification time, and last inode change time.

Location of the data on the hard disk.

Answer options D, B, and A are incorrect. The inode table contains all these information, the file type, file permissions on the specified file, location of data on the hard disk.

**QUESTION NO: 57**

You work as a Network Administrator for Perfect Solutions Inc. The company has a Linux-based network. Rick, a Sales Manager, wants to combine the contents of the Sale1.txt and Sale2.txt files to a new file named FinSale.txt. Which of the following commands will he use to accomplish the task?

- A. `ls Sale1.txt Sale2.txt < FinSale.txt`
- B. `cat Sale1.txt Sale2.txt < FinSale.txt`
- C. `ls Sale1.txt Sale2.txt > FinSale.txt`
- D. `cat Sale1.txt Sale2.txt > FinSale.txt`

**Answer: D**

**Explanation:**

The concatenate (cat) command is used to display or print the contents of a file.

Syntax:

`cat filename`

For example, the following command will display the contents of the `/var/log/dmesg` file:

`cat /var/log/dmesg`

Note: The more command is used in conjunction with the cat command to prevent scrolling of the screen while displaying the contents of a file.

**QUESTION NO: 58**

You work as a Network Administrator for company.com Inc. You have created a PostScript file by using a program. You want to convert it to a PDF file. Which of the following commands will you use to accomplish the task?

- A. ps2pdf
- B. enscrip
- C. pdf2ps
- D. a2ps

**Answer: A**

**Explanation:**

The ps2pdf utility is used to create PDF files. Therefore, in the above scenario, you will use ps2pdf command to accomplish the task.

Answer option C is incorrect. The pdf2ps utility converts PDF files to PostScript.

Answer options B and D are incorrect. enscrip and a2ps commands convert text to PostScript and send it to the print queue.

**QUESTION NO: 59**

Fill in the blank with the command to complete the statement below. Do not enter the full path of the command. The \_\_\_\_\_ command is used to compare the contents of two files for differences in the Red Hat operating system.

- A. diff

**Answer: A**

**Explanation:**

To compare the contents of two files the diff command is used in the Red Hat operating system.

**QUESTION NO: 60**

John is a newly appointed Network technician at McNeil Inc. The company has a Linux-based Network. John is currently working on the /tmp directory. The /tmp directory has a file named file3.txt. John wants to copy this file in a subdirectory named backup of his home directory /home/John. Which of the following commands should John use to accomplish his task? Each correct answer represents a complete solution. Choose three.

- A. cp file3.txt /home/John/backup

- B. cp file3.txt /home/John/backup/
- C. cp file3.txt backup
- D. cp file3.txt ~/backup

**Answer: A,B,D**

**Explanation:**

The cp command in option A will copy file3.txt to the destination /home/john/backup. The source and destination paths have been used correctly.

In option D ~ refers to home directory so it is also the correct destination path.

In option B appending / to the destination just tells the cp command explicitly that you are referring to a directory, not a file.

**QUESTION NO: 61**

You work as a Network Administrator for Perfect Solutions Inc. The company has a Linux-based network. You want to modify a configuration file in a Linux server. Which of the following utilities will you use to accomplish the task?

- A. VI
- B. NMAP
- C. MS Word
- D. GZIP

**Answer: A**

**Explanation:**

The VI is a visual interactive text editor that allows a user to create, modify, and store files on a Linux computer. It works in the following modes:

Command: This is the default mode of the command. Various commands can be used in this mode to manipulate the opened text.

Input: In this mode, a user can insert text directly in the text screen area.

Answer option D is incorrect. The GNU zip (GZIP) utility is a compression utility that is used to compress files for saving space. It creates files with the .gz extension. It can also compress tar files. In order to unzip files with the .gz extension, the GUNZIP command is used.

Answer option B is incorrect. The nmap utility, also commonly known as port scanner, is used to view the open ports on a Linux computer. It is used by administrators to determine which services are available for external users. This utility helps administrators in deciding whether to disable the services that are not being used in order to minimize any security risk.

Answer option C is incorrect. MS Word is a Windows-based utility. Hence, it cannot be used in Linux.

**QUESTION NO: 62**

Which of the following is a utility that can function as an independent spell checker?

- A. spell
- B. nice
- C. aspell
- D. inspell

**Answer: C**

**Explanation:**

aspell is a utility that can function as an ispell -a replacement, as an independent spell checker, as a test utility to test out Aspell features, and as a utility for managing dictionaries.

Syntax:

aspell [options]

Some important options used with aspell are as follows:

Options	Description
-list	It produces a list of misspelled words from standard input.
filter	It passes standard input through the same set of filters that would be used to spell check a document.
-v,version	It prints version number and exit.
config	It prints the current value of an option.

Answer option B is incorrect. The nice command is used to change the priority of a process in the kernel's scheduler. A niceness of -20 is the highest priority and 19 is the lowest priority. The default niceness for processes is inherited from its parent process, usually 0. For example, when specifying a very low priority, the following command can be entered: `nice -n 19 cc -c *.c &` The above command runs the cc command in the background at a lower priority than the default priority set by the nice command.

Answer options D and A are incorrect. There are no such spell checkers as inspell and spell.

**QUESTION NO: 63**

You want to repeat the last command you entered in the bash shell. Which of the following commands will you use?

- A. history !#
- B. history !!
- C. history ##
- D. history !1

**Answer: B**

**Explanation:**

The history !! command shows the previously entered command in the bash shell. In the bash shell, the history command is used to view the recently executed commands. History is on by default. A user can turn off history using the command set +o history and turn it on using set -o history. An environment variable HISTSIZE is used to inform bash about how many history lines should be kept. The following commands are frequently used to view and manipulate history:

Command	Description
history	Used to see the entire history
history N	Used to display last N lines of the history
history -d N	Used to delete line N from the history
history !!	Used to display the most recent history command
history !n	Used to view the Nth history command

Answer option A is incorrect. The history !# command shows the entire command line typed.

Answer option D is incorrect. The history !n command shows the nth command typed. Since n is equal to 1 in this command, the first command will be shown.

Answer option C is incorrect. It is not a valid command.

**QUESTION NO: 64**

Which of the following SHELL commands displays currently logged-in users and their tasks?

- A. w
- B. finger
- C. whoami
- D. who

**Answer: A**

**Explanation:**

The w command displays currently logged-in users and their tasks.

Answer option C is incorrect. The whoami command displays the user name of the current user.

Answer option D is incorrect. The who command displays currently logged-in users. It does not display their tasks.

Answer option B is incorrect. The finger command displays information on system users.

**QUESTION NO: 65**

John works as a Network Administrator for Perfect Solutions Inc. The company has a Linux-based network. John is working as a root user on the Linux operating system. He wants to change the modified date and time of the file private.txt to 11 Nov 2009 02:59:58 am. Which of the following commands will John use to accomplish his task?

Each correct answer represents a complete solution. Choose all that apply.

- A. touch -t 200911110259.58 private.txt
- B. rm private.txt#11 Nov 2009 02:59:58 am
- C. touch private.txt#11 Nov 2009 02:59:58 am
- D. touch -d "11 Nov 2009 02:59:58 am" private.txt

**Answer: A,D**

**Explanation:**

According to the scenario, John wants to change the modified date and time of the file private.txt to a desired date and time. For this, he can use either the touch -t or touch -d command. The difference between these two commands is that the touch -d command is more flexible, while the touch -t command takes the date and time in the format MMDDhhmm.ss.

**QUESTION NO: 66**

Which of the following are the Graphical Mail clients in Red Hat Enterprise Linux?

Each correct answer represents a complete solution. Choose two.

- A. Pidgin
- B. Mozilla
- C. Evolution
- D. mutt

**Answer: B,C**

**Explanation:**

The Evolution and Mozilla are the Graphical Mail clients in Red Hat Enterprise Linux.

**QUESTION NO: 67**

You work as a Network Administrator for Net Perfect Inc. The company has a Linux-based network.

By using the VI utility, you have created a document that has 100 lines. You want to replace all the occurrences of "net" with "Net" in the first 50 lines of the document. Which of the following commands will you use?

- A. :1,\$ s/net/Net/g
- B. :1,100 s/net/Net/g
- C. :1,50 s/net/Net/g
- D. :s/net/Net/g

**Answer: C**

**Explanation:**

In order to replace all the occurrences of "net" with "Net" in the first fifty lines of the file, you will have to execute the following command: `:1,50 s/net/Net/g`

This command is issued in the command mode of the VI utility. 1,50 defines the initial and final line numbers of the current document where the command will execute. The s/ switch with the net/Net/g option will globally replace all the occurrences of "net" with "Net".

Answer option A is incorrect. This command will replace "net" with "Net" all over the current document.

Answer option B is incorrect. Since this command executes on the first 100 lines of a document, it will replace "net" with "Net" in all the 100 lines of the current document.

Answer option D is incorrect. This command will replace "net" with "Net" in the current line of the current document.

**QUESTION NO: 68**

Which of the following commands will you execute to fix other writable files in your home directory?

- A. `find -perm -002 -exec chmod o-w {} \;`
- B. `find /home -type d -ls`
- C. `find ~ -perm -002 -exec chmod o-w {} \;`
- D. `find ~ -perm -002 -exec chmod -w {} \;`

**Answer: C**

**Explanation:**

You will use `find ~ -perm -002 -exec chmod o-w {} \;` command to fix other writable files in your home directory.

Answer option B is incorrect. The `find /home -type d -ls` command is used to do an ls -l style listing of all directories in /home/.

Answer options A and D are incorrect. There are no such commands in Linux.

**QUESTION NO: 69**

John works as a Network Administrator for Perfect Solutions Inc. The company has a Debian Linuxbased network. He is working on the bash shell in which he creates a variable VAR1. After some calculations, he opens a new ksh shell. Now, he wants to set VAR1 as an environmental variable so that he can retrieve VAR1 into the ksh shell. Which of the following commands will John run to accomplish the task?



- A. touch VAR1
- B. env -u VAR1
- C. export VAR1
- D. echo \$VAR1

**Answer: C**

**Explanation:**

Since John wants to use the variable VAR1 as an environmental variable, he will use the export command to accomplish the task.

**QUESTION NO: 70**

You run the `wc -c file1.txt` command. If this command displays any error message, you want to store the error message in the error.txt file. Which of the following commands will you use to accomplish the task?

- A. `wc -c file1.txt >>error.txt`
- B. `wc -c file1.txt 1>error.txt`
- C. `wc -c file1.txt 2>error.txt`
- D. `wc -c file1.txt >error.txt`

**Answer: C**

**Explanation:**

According to the scenario, you will use the `wc -c file1.txt 2>error.txt` command to accomplish the task. The `2>` operator is an error redirector, which, while running a command, redirects the error (if it exists) on the specified file.

Answer options D and B are incorrect. The `>` or `1>` redirector can be used to redirect the output of the `wc -c file1.txt` file to the error.txt file; however, you want to write the errors in the error.txt file, not the whole output.

Answer option A is incorrect. The `>>` operator will redirect the output of the command in the same manner as the `>` or `1>` operator. Although the `>>` operator will not overwrite the error.txt file, it will append the error.txt file.

**QUESTION NO: 71**

Fill in the blank with the appropriate permission to complete the statement below.

\_\_\_\_\_ is Linux access permission flag bit that allows users to run an executable file with the permissions of the executable's owner.

- A. SUID

**Answer: A**

**Explanation:**

Set user ID is the Linux access permission flag bit that allows users to run an executable file as the permissions of the executable's owner. When the Set user ID (SUID) bit is set and a user executes the file, the user will have the same rights as the owner.

If the Set user ID bit is set and the owner has the execute permission, the 'x' in the owner permissions is replaced by 's'. If the Set user ID bit is set and the owner has no execute permission, the 'x' is replaced by 'S'.

For example:

-rwsrw----The owner has the execute permission and the SUID bit is set.

-rwSr----- The SUID bit is set, but the owner has no execute permission.

**QUESTION NO: 72**

Which of the following commands is used to create a partition on a new hard disk of a Linux computer?

- A. fdisk
- B. crpar
- C. mount
- D. fsck

**Answer: A**

**Explanation:**

The fdisk command is a menu-based command available with Linux for hard disk configuration.

This command can perform the following tasks:

Delete a partition on a hard disk.

Create a partition on a hard disk.

Change the partition type.

Display the partition table.

Note: The sfdisk command-line utility is an alternative to the fdisk command.

Answer option C is incorrect. In Linux, the mount command is used to mount and display disks, partitions, and file systems. Mounting refers to the process in which the operating system prepares the media to be read.

Answer option D is incorrect. The File System Check (fsck) command is used to scan all disks and partitions, and it repairs them if required. The

fsck command should be run only on an unmounted file system.

Note: The function of the fsck command is similar to that of the Window's scandisk utility.

Answer option B is incorrect. There is no such command as crpar in Linux.

**QUESTION NO: 73**

Which of the following is a multi-platform instant messaging client, based on a library named libpurple?

- A. Evolution
- B. mutt
- C. Pidgin
- D. Thunderbird

**Answer: C**

**Explanation:**

Pidgin (formerly named Gaim) is a multi-platform instant messaging client, based on a library named libpurple. Libpurple has support for many commonly used instant messaging protocols, allowing a user to log into various different services from one application.

What is Pidgin?

Pidgin is a multi-protocol Instant Messaging client that allows a user to use all of his IM accounts at once. It is a free software that can work with AIM ,Gadu-Gadu, Jabber, ICQ ,IRC, MSN, SILC, XMPP, Yahoo!, and Zephyr Network. Anyone is free to use it and modify it, but if a user distributes his modifications, he must distribute the modified source code as well.

The license of this communication software is Freeware, i.e. anyone can freely download and use this communication software.

Answer options A and D are incorrect. Evolution and Thunderbird are Graphical mail clients in Linux.

It is not an Instant Messenger.

What is Evolution?

Evolution is a full-featured personal and workgroup information management tool for Linux systems, and is the default email client for Red Hat Enterprise Linux. It provides all of the standard email client features, including powerful mailbox management, user-defined filters, and quick searches. Its additional feature is a flexible calendar/scheduler, which allows users to create and confirm group meetings and special events online.

What is Thunderbird?

Mozilla Thunderbird is a free, open source, cross-platform e-mail and news client developed by the Mozilla Foundation.

Thunderbird can manage multiple e-mail, newsgroup and RSS accounts and supports multiple identities within accounts.

Thunderbird incorporates a Bayesian spam filter, a white list based on the included address book, and can also understand classifications by server-based filters such as SpamAssassin.

Thunderbird provides enterprise and government-grade security features such as SSL/TLS connections to IMAP and SMTP servers. It also offers native support for S/MIME secure email (digital signing and message encryption using certificates).

Answer option B is incorrect. mutt is an email client that manages emails within a text-only environment. It is not an Instant Messenger.

What is mutt? mutt is a powerful tool for managing email within a text-only environment. This tool is very important to access email even when a graphical interface is not available. Some of its strengths are handling of message threads and flexibility. When mutt sees a series of related messages, it displays each reply under the parent. mutt supports sending of attachments through a mail. The following example describes how a file can be attached to a mail: echo "Sending an attachment." | mutt -a backup.zip -s "attachment" local@domain.com

This command will send a mail to local@domain.com with the subject (-s) "attachment", the body text "Sending an attachment.", containing the attachment (-a) backup.zip.

#### QUESTION NO: 74

You work as the Network Administrator for McNeil Inc. The company has a Linux-based network. You are working as a root user on the Linux operating system. Some employees have been recently appointed in your company. You have to add these users in your network. Which of the following tools should you use to accomplish this task?

Each correct answer represents a complete solution. Choose two.

- A. useradd
- B. userdel
- C. adduser
- D. usermod

**Answer: A,C**

#### Explanation:

The useradd or adduser command is used to add a user on the Linux operating system.

#### QUESTION NO: 75

You are a newly appointed network technician at Net Perfect Inc. The company has a Linux-based network. You want to install a package named firefox on your Linux system. Which of the following commands will you use to accomplish the task?

- A. yum update firefox
- B. yum i firefox
- C. yum install firefox
- D. yum -ivh firefox

**Answer: C**

**Explanation:**

You will use the `yum install firefox` command to install the package named `firefox` in the Linux system. This command will search the configured repositories for the package named `firefox`, and if found, will install the latest version, pulling in dependencies if needed.

Answer options B and D are incorrect. The `-ivh` and `i` options are not used with the `yum` command.

Answer option A is incorrect. The `yum update firefox` command is used to update a package in the Linux system. It is not used to install a package in Linux. If run without any specified package, the update option will update every currently installed package. If one or more packages are specified, `yum` will only update the listed packages. While updating packages, `yum` will ensure that all dependencies are satisfied.

**QUESTION NO: 76**

Which of the following commands can be used by a user to display the list of contents existing in his current user account?

Each correct answer represents a complete solution. Choose all that apply.

- A. `echo *`
- B. `ls ~`
- C. `ls *`
- D. `pwd`

**Answer: A,B**

**Explanation:**

The `ls ~` and `echo *` commands can be used by a user to display the list of contents existing in his current user account. While `~` forces a command to perform queries in the user's home directory, `ls` displays the contents of the home directory.

**QUESTION NO: 77**

You work as a Network Administrator for Blue Bell Inc. The company has a Linux-based network. You are working on a Linux computer. You get the following listing on your computer:

```
rwxr-xr-x 2 rick user 15 May 3 3:12 file92
```

How many hard links have been created for `file92`?

- A. 2
- B. 3

C. 15

D. 12

**Answer: A**

**Explanation:**

The second column in the listing shows the number of hard links created for the file.

#### QUESTION NO: 78

John works as a Network Administrator for Perfect Solutions Inc. The company has a Linux-based network. John is working as the root user on the Linux operating system. He wants to delete all files whose names end with a number. Which of the following commands will John use to accomplish the task?

A. `rm *[0-9]`

B. `rm [^0-9]`

C. `rm ^[0-9]`

D. `rm [0-9]*`

**Answer: A**

**Explanation:**

The `rm *[0-9]` command deletes all files whose names end with a number.

Answer option B is incorrect. The `rm [^0-9]` command deletes all files except those having names ending with a number.

Answer option C is incorrect. The `rm ^[0-9]` command deletes all files whose names begin with a number.

Answer option D is incorrect. The `rm [0-9]*` command also deletes all files whose names begin with a number.

#### QUESTION NO: 79

Which of the following commands look through the currently running processes, and list the process IDs that match the selection criteria to stdout?

Each correct answer represents a complete solution. Choose all that apply.

A. `top`

B. `pkill`

C. `sort`

D. `pgrep`

**Answer: B,D**

### Explanation:

pgrep looks through the currently running processes and lists the process IDs that match the selection criteria to stdout. All the criteria have to match. pkill is a tool that looks up or signals processes based on name and other attributes. Pkill will send the specified signal (by default SIGTERM) to each process instead of listing them on stdout.

Answer option A is incorrect. The top command is used to produce a frequently-updated list of processes. By default, the processes are ordered by percentage of CPU usage, with only the "top" CPU consumers shown. This command shows how much processing power and memory are being used, as well as other information about the running processes. The following figure demonstrates the output of the top command:

```

top - 14:16:18 up 1 day, 2:21, 7 users, load average: 0.99, 0.77, 0.74
Tasks: 82 total, 3 running, 79 sleeping, 0 stopped, 0 zombie
Cpu(s): 62.0%us, 5.3%sy, 0.0%ni, 32.3%id, 0.0%wa, 0.0%hi, 0.3%si, 0.0%st
Mem: 514068k total, 507096k used, 6972k free, 38628k buffers
Swap: 2867192k total, 0k used, 2867192k free, 182324k cached

  PID USER      PR  NI  VIRT  RES  SHR  S  %CPU  %MEM    TIME+  COMMAND
 3322 albert    16   0   199m 113m 23m  F  40.4  22.7   509:16.86 firefox-bin
 2977 root       5  -10 78560  52m 8128  S  13.6  10.5   49:18.01 Xorg
 3080 albert    15   0 20192  11m 9348  S   6.3   2.2    2:56.19 metacity
 3082 albert    16   0 38020  16m 13m  F   5.3   3.3    8:42.89 gnome-panel
 4510 albert    16   0 20012  10m 8716  S   1.0   2.1    0:01.22 screenshot
 4495 albert    15   0 3024 1304 1032  F   0.7   0.3    0:00.93 top
 4507 albert    15   0 33052  23m 11m  S   0.7   4.6    0:10.02 gimp
 4472 albert    15   0 7756 3344 2728  S   0.3   0.7    0:00.29 xterm
    1 root      15   0 2488  856 744  S   0.0   0.2    0:02.30 init
    2 root      34  19    0    0    0  S   0.0   0.0    0:00.00 ksoftirqd/0
    3 root      RT   0    0    0    0  S   0.0   0.0    0:00.00 watchdog/0
    4 root      10  -5    0    0    0  S   0.0   0.0    0:01.73 events/0
    5 root      10  -5    0    0    0  S   0.0   0.0    0:00.03 khelper
    6 root      10  -5    0    0    0  S   0.0   0.0    0:00.00 kthread
   25 root      10  -5    0    0    0  S   0.0   0.0    0:00.01 kblockd/0
   30 root      10  -5    0    0    0  S   0.0   0.0    0:00.30 khubd
   32 root      20  -5    0    0    0  S   0.0   0.0    0:00.00 kseriou
  
```

Answer option C is incorrect. The sort command is used to print the lines of its input or concatenation of all files listed in its argument list in sorted order. Sorting is done based on one or more sort keys extracted from each line of input. By default, the entire input is taken as the sort key. The blank space is taken used as the default field separator in the output of the sort command.

The -r flag, however, reverses the sort order. For example, the ls -s | sort -nr command will sort the directories of the root directory in reverse order of size.

### QUESTION NO: 80

Which of the following operators is used to connect the output of one command to the input of another command?



- A. >
- B. |
- C. 2>
- D. &>

**Answer: B**

**Explanation:**

A pipe is a way to connect the output of one command to the input of another command without any temporary file.

What is a pipe?

A pipe is a temporary storage place where the output of one command is stored and then passed as the input for another command. Pipes are used to run more than two commands from the same command line.

Syntax:

command1 | command2 | command3.....etc.

Answer option A is incorrect. The operator > is used to redirect standard output (STDOUT) to a file.

Answer option C is incorrect. The operator 2> is used to redirect standard error (STDERR) to a file.

Answer option D is incorrect. The operator &> is used to redirect all output to a file.

**QUESTION NO: 81**

John works as a Network Administrator for Perfect Solutions Inc. The company has a Linux-based network. John is working as a root user on the Linux operating system. You want to run two programs, foo and bar. You also want to ensure that bar is executed if and only if foo has executed successfully. Which of the following command sequences will John use to accomplish the task?

- A. foo && bar;
- B. foo | bar;
- C. foo; bar;
- D. foo || bar;

**Answer: A**

**Explanation:**

According to the scenario, John will execute the foo && bar; command. Because of the && operator, bar will execute if and only if foo completes successfully.

Answer option C is incorrect. The foo; bar; command sequence will run foo and bar in a sequential manner, but the successful completion of the first command does not matter.

Answer option D is incorrect. The foo || bar; command sequence will run the bar if and only if foo

fails to complete successfully.

Answer option B is incorrect. In the `foo | bar;` command sequence, the output of the `foo` command will be the input for the `bar` command.

### QUESTION NO: 82

You work as the Network Administrator for Perfect Solutions Inc. The company has a Linux-based network. You are a root user on the Red Hat operating system. You want to view all files with a size of over 50 megabytes on your system. Which of the following commands should you use to accomplish the task?

- A. `find -size +50M`
- B. `find -size -50M`
- C. `find -size 50M`
- D. `find size +50M`

**Answer: A**

#### Explanation:

This command will search for files with a size of over 50 megabytes. The `-size` option tells `find` to search files according to the size of files, and `+50M` will tell the `find` command to search files over 50 megabytes.

Answer option C is incorrect. This command will search for files with a size of exactly 50 megabytes.

Answer option B is incorrect. This command will search for files with a size of less than 50 megabytes.

Answer option D is incorrect. `-` must be prefixed with `size`, otherwise shell will not recognize this command, and display an error message.

### QUESTION NO: 83

You are working with the `vi` editor and writing a textfile. Which of the following commands will you use if you want to move the cursor 3 characters to the right?

- A. `3b`
- B. `3w`
- C. `3l`
- D. `3h`

**Answer: C**

#### Explanation:

The 3l command in vi will move the cursor 3 characters to the right when you are in command mode of vi editor. You can go into command mode by pressing the <escape> key.

What is the vi editor?

The vi editor is an interactive, cryptic, and screen-based text editor used to create and edit a file. It operates in either

Input mode or Command mode. In Input mode, the vi editor accepts a keystroke as text and displays it on the screen, whereas in Command mode, it interprets keystrokes as commands. As the vi editor is case sensitive, it interprets the same character or characters as different commands, depending upon whether the user enters a lowercase or uppercase character. When a user starts a new session with vi, he must put the editor in Input mode by pressing the "i" key. If he is not able to see the entered text on the vi editor's screen, it means that he has not put the editor in

Insert mode. The user must change the editor to Input mode before entering any text so that he can see the text he has entered.

Answer option D is incorrect. The 3h command will move the cursor 3 characters to the left.

Answer option B is incorrect. The 3w command will move the cursor forward by 3 words.

Answer option A is incorrect. The 3b command will move the cursor backward by 3 words.

#### QUESTION NO: 84

Which of the following information does the /etc/passwd file contain? Each correct answer represents a complete solution. Choose all that apply.

- A. Numerical group ID
- B. User name
- C. Shadow password
- D. Numerical user ID
- E. Reserved gecos ID
- F. User's home directory

**Answer: A,B,D,E,F**

#### Explanation:

All these information are stored in the /etc/passwd file.

What is the /etc/passwd file?

In Linux operating systems, the /etc/passwd file lists information about each of the users that may login to the system. The file is so named because originally it also contained the data used to verify passwords. However, on

modern Unix systems, the security-sensitive password information is instead often stored in a different file using shadow passwords.

The /etc/passwd file typically has world-readable permissions, though it may only be edited by the superuser or by using a few special purpose commands.

The first field is the user name. Each record in the file must have a unique user name field.

The second field stores information used to confirm a user's password; however, in most modern uses, this field is usually set to "x" (or some other indicator) with the actual password information being stored in a separate shadow password file.

The third field is the user identifier, the number that the operating system uses for internal purposes. It does not have to be unique.

The fourth field is the group identifier. This number identifies the primary group of the user; all files that are created by this user will initially belong to this group.

Reserved gecos ID (Typically, this is a set of comma-separated values including the user's full name

and contact details).

The sixth field is the path to the user's home directory.

The seventh field is the shell program that is started every time the user logs into the system.

Answer option C is incorrect. The shadow password is stored in the /etc/shadow file.

What is /etc/shadow file?

The /etc/shadow file stores the account information in the following format:

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UserName:Password:Last:May:Must:Warn:Expire:Disable:Reserved	
Option	Description
UserName	Username, up to 8 characters. Case-sensitive, usually all lowercase. A direct match to the username in the /etc/passwd file.
Password	Password, 13 character encrypted. A blank entry (eg. :) indicates a password is not required to log in (usually a bad idea), and a '*' entry (eg. :) indicates the account has been disabled.
Last	The number of days (since January 1, 1970) since the password was last changed.
May	The number of days before the password may be changed (0 indicates it may be changed at any time).
Must	The number of days after which the password must be changed (99999 indicates a user can keep his or her password unchanged for many, many years).
Warn	The number of days to warn a user of an expiring password (? for a full week).
Expire	The number of days after which the password expires since the account has been disabled.
Disable	The number of days (since January 1, 1970) since the account was disabled.
Reserved	A reserved field for possible future use.

itexamworld.c

## QUESTION NO: 85

You have made a program secure.c to display which ports are open and what types of services are running on these ports. You want to write the program's output to standard output and simultaneously copy it into a specified file. Which of the following commands will you use to accomplish the task?

- A. less
- B. tee
- C. cat
- D. more

**Answer: B**

### Explanation:

You will use the tee command to write its content to standard output and simultaneously copy it into the specified file. The tee command is used to split the output of a program so that it can be seen on the display and also be saved in a file.

It can also be used to capture intermediate output before the data is altered by another command or program. The tee command reads standard input, then writes its content to standard output, and simultaneously copies it into the specified file(s) or variables. The syntax of the tee command is as follows: `tee [-a] [-i] [File]` where, the `-a` option appends the output to the end of File instead of writing over it and the `-i` option is used to ignore interrupts.

Answer option C is incorrect. The concatenate (`cat`) command is used to display or print the contents of a file.

Syntax: `cat filename`

For example, the following command will display the contents of the `/var/log/dmesg` file:

`cat /var/log/dmesg`

Note: The `more` command is used in conjunction with the `cat` command to prevent scrolling of the screen while displaying the contents of a file.

Answer option A is incorrect. The `less` command is used to view (but not change) the contents of a text file, one screen at a time. It is similar to the `more` command. However, it has the extended capability of allowing both forward and backward navigation through the file. Unlike most Unix text editors/viewers, `less` does not need to read the entire file before starting; therefore, it has faster load times with large files.

The command syntax of the `less` command is as follows: `less [options] file_name`

Where,

Option	Description
<code>-h</code>	Highlights just the current match of any searched string
<code>-I</code>	Performs case-insensitive searches
<code>-M</code>	Shows more detailed prompt, including file position
<code>-N</code>	Shows line numbers
<code>-S</code>	Disables line wrap

Answer option D is incorrect. The `more` command is used to view (but not modify) the contents of a text file on the terminal screen at a time.

The syntax of the `more` command is as follows: `more [options] file_name`

Where,

Option	Description
<code>-num</code>	It specifies an integer, which is the screen size (in lines).
<code>-d</code>	<code>more</code> will prompt the user with the message "[Press space to continue, 'q' to quit.]" and will display "[Press 'h' for instructions.]" instead of ringing the bell when an illegal key is pressed.
<code>-l</code>	<code>more</code> treats <code>^L</code> as a special character, and pauses after any line that contains a form feed. The <code>-l</code> option prevents this behavior.
<code>-f</code>	It causes <code>more</code> to count logical, rather than screen lines (i.e., long lines are not folded).
<code>-u</code>	It suppresses underlining.
<code>+/</code>	It specifies a string that will be searched for before each file is displayed.
<code>+num</code>	<code>more</code> starts file at line number <code>num</code> .

## QUESTION NO: 86

You work as the Network Administrator for McNeil Inc. The company has a Linux-based network. You are a root user on the Red Hat operating system. You want view all files on the system that have the `.xml` filename extension. Which of the following commands should you use to accomplish the task?

- A. locate .xml
- B. locate -name /.xml
- C. locate "\*.xml"
- D. cat .xml

**Answer: C**

**Explanation:**

The locate command queries a database for all pathnames that match the specified pattern. The specificity of locate can be increased by using it together with wildcards or other regular expressions. This command uses the star wildcard to display all files on the system that have the .xml filename extension.

What is a regular expression?

A regular expression is a way of describing a string of text using metacharacters or wildcard symbols.

For example, "\*.xml" is a regular expression that refers to all files having the extension .xml.

What is a wildcard?

The specificity of LOCATE can be increased by using it together with wildcards or other regular expressions. Wildcards are characters that can be used to substitute for any other character or characters. For example, the star character (\*) is a wildcard that can represent any single character or any string containing any number of characters.

Answer option A is incorrect. This is an incorrect syntax and an error messages will be displayed.

Answer option D is incorrect. The cat command displays the content of the specified file.

Answer option B is incorrect. This is an incorrect command, when you type this command an error message will be displayed.

**QUESTION NO: 87**

You work as a Network Administrator for Maverick Inc. The company has a Linux-based network. You are working on a Linux computer. You want to see the environment variables that are set on your computer. Which of the following commands will you use?

- A. env
- B. rm
- C. ls
- D. echo \$shell

**Answer: A**

**Explanation:**

The env command is used to list the environment variables that are set on a Linux computer. The programs that run on a Linux computer are known as processes. When a user starts a program, a new process is created. This process runs within what is called an environment. A user



can set parameters in this environment so that the running program can find the desired values.

The following syntax is used to set a parameter to a variable:

`VARIABLE=value`

This would set a parameter by the name `VARIABLE` with the value that you provide. Some of the commonly used environment variables are `HOME`, `PATH`, `PS1`, etc.

Answer option B is incorrect. The `rm` command is used to delete files from a directory on a Linux computer.

Answer option C is incorrect. The `ls` command is used to list files on a Linux computer.

Answer option D is incorrect. The `echo $shell` command will provide the name of the current shell that a user is using.

### QUESTION NO: 88

You work as a Network Administrator for Net World International. You have installed a Linux server on the company's network. Users report that they are unable to write on a file system. You verify that there is no free space available on the hard disk drive. You mount another hard disk drive to resolve the issue. How will you prevent the issue from happening again?

- A. Dedicate a hard disk drive for users to save their files.
- B. Ask users to save only those files that are important.
- C. Track the amount of free space on the hard disk.
- D. Increase the amount of RAM on the server.

**Answer: C**

#### Explanation:

If there is no free space on the hard disk drive, users will not be able to write on it. To prevent this issue from happening again, you should track the amount of free space on the hard disk. By doing so, you can take necessary actions before the actual problem arises.

Answer option B is incorrect. Even if users save their important files, the hard disk drive will still become full sooner or later.

Answer option A is incorrect. Dedicating a hard disk drive for users to save their files will not prevent the drive from becoming full.

Answer option D is incorrect. The shortage of RAM is not the issue in this scenario.

### QUESTION NO: 89

You work as the Network Technician for Tech Perfect Inc. The company has a Linux-based network.

You are currently working on `vim`. You opened a file in four windows in a single `vim` screen. You want to jump from one window to another. Which of the following key-combinations should you use to accomplish the task?



- A. Ctrl-w, v
- B. Ctrl-w, s
- C. Ctrl-w with an arrow key
- D. Ctrl-w, q

**Answer: C**

**Explanation:**

Ctrl-w key-combination with an arrow key is used to jump from one window to another. This will move you to the next window in whichever direction the arrow would normally move your cursor.

Instead of the arrow keys, you can also use

vi's traditional h, j, k and l keys for the same effect.

Answer options B and A are incorrect. Ctrl-w, s and Ctrl-w, v key-combinations are used to view a file in two windows in a single vim screen.

Ctrl-w, s splits the screen horizontally and Ctrl-w, v splits the screen vertically.

Answer option D is incorrect. Ctrl-w, q is used to quit from your current window.

**QUESTION NO: 90**

Mark works as a Network Administrator for company.com Inc. The company has a Linux-based network. A printer is configured on the network. Mark wants to see the content of a print queue. Which of the following commands will he use to accomplish the task?

- A. lprm
- B. lpstat -a
- C. lpq
- D. lpr

**Answer: C**

**Explanation:**

The lpq command views the content of a print queue.

Answer option D is incorrect. The lpr command sends a job to the queue to be printed.

Answer option A is incorrect. The lprm command removes a job from the queue.

Answer option B is incorrect. The lpstat -a command lists the configured printers.

**QUESTION NO: 91**

Which of the following commands is used to create a tar file?

- A. tar -ivf filename.tar directory/file
- B. tar -cvf filename.tar directory/file

- C. tar -tvf filename.tar
- D. tar -xvf filename.tar

**Answer: B**

**Explanation:**

The tar -cvf filename.tar directory/file command is used to create a tar file. filename.tar represents the file you are creating and directory/file represents the directory and file you want to put in the archived file.

Answer option C is incorrect. The tar -tvf filename.tar command is used to list the contents of a tar file.

Answer option D is incorrect. The tar -xvf filename.tar command is used to extract the contents of a tar file.

Answer option A is incorrect. There is no such command as tar -ivf filename.tar directory/file.

**QUESTION NO: 92**

Which of the following commands is most useful for viewing large files?

- A. cp
- B. cat
- C. less
- D. touch

**Answer: C**

**Explanation:**

The less command is most useful for viewing large files. The less command displays the output of a file one page at a time. Viewing large files through cat may take more time to scroll pages, so it is better to use the less command to see the content of large files.

Answer option B is incorrect. The cat command is also used to view the content of a file, but it is most useful for viewing short files.

Answer option A is incorrect. The cp command is used to copy files and directories from one location to another.

Answer option D is incorrect. The touch command is not used to view the content of a file. It is used to create empty files or to update file timestamps.

**QUESTION NO: 93**

Which of the following manual sections of MAN pages provides help information for administrative commands?

- A. 4
- B. 2
- C. 1
- D. 8

**Answer: D**

**Explanation:**

The manual section 8 of MAN pages provides help information for administrative commands. Manpages are grouped into sections. Sometimes a user has to know the appropriate section in which he wants to search for an item. For example, if a user is interested in the print Clanguage function rather than the command, he has to tell the man program to search the section on library functions. The user can enter the following command to search the c-language print function: `man 3 print`

The various MAN sections are as follows:

Section	Description
1	User programs
2	System calls
3	Library calls
4	Special files (usually found in /dev)
5	File formats
6	Games
7	Miscellaneous
8	System administration

**QUESTION NO: 94**

You work as the Network Technician for Tech Perfect Inc. The company has a Linux-based network.

You are working as a root user on the Linux operating system. You want to create an alias such that when you type `c`, the system should run the `clear` command to clear the screen. Which of the following tools should you use to accomplish the task?

- A. `alias clear`
- B. `alias clear= c`
- C. `alias c`
- D. `alias c= 'clear'`

**Answer: D**

**Explanation:**

When a user types `alias c= 'clear'` on the command prompt and presses Enter this will create an alias for the `clear` command. After creating the alias whenever a user wants to clear the screen, he just needs to type `c` and then press Enter.

This action will clear the screen. This alias will be lost if a user logs out and logs in again.

What is the alias command?

The alias command is a shortcut name for longer commands. If a command is run often, but it takes a considerable amount of time in typing that command, the time can be reduced by using the alias command.

For example: # alias list= 'ls-la'

This will create an alias called list, which will use the ls command to print a long-style listing of all files in the current directory (the -l gives a long-style list, and the -a shows all files -including hidden files).

Answer options B, C, and A are incorrect. These are incorrect commands and will show error messages on the command prompt.

### QUESTION NO: 95

You run the ps -aux command on the terminal. You get the following output:

You notice that the process id 24224 is showing the status message S on the stat column. What does this indicate?

- A. The process id 24224 is in sleeping status.
- B. The process id 24224 is hanged.
- C. The process id 24224 is in stopped status.
- D. The process id 24224 is in running status.

**Answer: A**

#### Explanation:

According to the scenario, the S status message shows that the process id 24224 is in sleeping status.

The ps -aux command reports the status of processes currently running on a Linux computer. It shows the following status messages:

Status Message	Description
R	Process is in running condition.
S	Process is in sleeping condition.
T	Process is stopped by the user or any other process.
Z	Process is hanged and cannot be stopped. A user should use the kill command in such a situation.

### QUESTION NO: 96

You want to check whether the cc process is running on a computer. Which of the following commands can you use to accomplish the task? Each correct answer represents a complete solution.

Choose all that apply.

- A. ps -aux | more

- B. tail -f
- C. ps -aux | grep cc
- D. ps -aux

**Answer: A,C,D**

**Explanation:**

You can view all running processes with the help of the ps -aux command. Hence, any of the ps -aux commands (i.e., ps -aux | grep cc, ps -aux

| more, or ps -aux) can be used to check whether the cc process is running on the computer.

Answer option B is incorrect. The tail command is used to display the last few lines of a text file or piped data. It has a special command line option -f (follow) that allows a file to be monitored.

Instead of displaying the last few lines and exiting, tail displays the lines and then monitors the file.

As new lines are added to the file by another process, tail updates the display. This is particularly useful for monitoring log files. The following command will display the last 10 lines of messages and append new lines to the display as new lines are added to messages: tail -f

/var/adm/messages

**QUESTION NO: 97**

You work as a Network Administrator for Perfect solutions Inc. The company has a Linux-based network. You are a root user on the Red Hat operating system. You want to see the file permissions on a file. Which of the following commands will you use to accomplish the task?

- A. cat
- B. ls -l
- C. ls
- D. ls -perm

**Answer: B**

**Explanation:**

The ls -l command shows the permissions on a specified file.

Answer option C is incorrect. The ls command without arguments lists the file and directory names in the current directory.

Answer option D is incorrect. No such command exists in Linux.

Answer option A is incorrect. The cat command shows the contents of a file.

**QUESTION NO: 98**

Which of the following commands will you use to lists the jobs that are running in the background and in the foreground?

- A. top
- B. bg
- C. job
- D. jobs

**Answer: D**

### Explanation:

The jobs command lists the jobs that are running in the background and in the foreground. If the prompt is returned with no information, no jobs are present.

Syntax:

`jobs [-p | -l] [-n] [-p] [-x] [job id]`

Some important options used with jobs command are as follows:

Option	Description
-o	It displays only jobs that have stopped or exited since last notified.
-p	It displays only the process IDs for the process group leaders of the selected jobs.
-x	It replaces any job_id found in command or arguments with the corresponding process group ID, and then executes the command.
job id	It specifies the job id.

Answer option A is incorrect. The top command is used to produce a frequently-updated list of processes. By default, the processes are ordered by percentage of CPU usage, with only the "top" CPU consumers shown. This command shows how much processing power and memory are being used, as well as other information about the running processes. The following figure demonstrates the output of the top command:

```

top - 14:16:18 up 1 day, 2:21, 7 users, load average: 0.99, 0.77, 0.74
Tasks: 82 total, 3 running, 79 sleeping, 0 stopped, 0 zombie
Cpu(s): 62.0%us, 5.3%sy, 0.0%ni, 32.3%id, 0.0%wa, 0.0%hi, 0.3%si, 0.0%st
Mem: 514068k total, 507096k used, 6972k free, 38628k buffers
Swap: 2867192k total, 0k used, 2867192k free, 182324k cached

  PID USER      PR  NI  VIRT  RES  SHR  S %CPU  %MEM    TIME+  COMMAND
 3322 albert    16   0 199m 113m 23m  F 40.4  22.7   509:16.86 firefox-bin
 2977 root       5  -10 78560 52m 8128  S 13.6  10.5   49:18.01 Xorg
 3080 albert    15   0 20192 11m 9348  S  6.3   2.2    2:56.19 metacity
 3082 albert    16   0 38020 16m 13m  F  5.3   3.3    8:42.89 gnome-panel
 4510 albert    16   0 20012 10m 8716  S  1.0   2.1    0:01.22 screenshot
 4495 albert    15   0 3024 1304 1032  F  0.7   0.3    0:00.93 top
 4507 albert    15   0 33052 23m 11m  S  0.7   4.6    0:10.02 gimp
 4472 albert    15   0 7756 3344 2728  S  0.3   0.7    0:00.29 xterm
    1 root      15   0 2488  856  744  S  0.0   0.2    0:02.30 init
    2 root      34  19    0    0    0  S  0.0   0.0    0:00.00 ksoftirqd/0
    3 root      RT   0    0    0    0  S  0.0   0.0    0:00.00 watchdog/0
    4 root      10  -5    0    0    0  S  0.0   0.0    0:01.73 events/0
    5 root      10  -5    0    0    0  S  0.0   0.0    0:00.03 khelper
    6 root      10  -5    0    0    0  S  0.0   0.0    0:00.00 kthread
   25 root      10  -5    0    0    0  S  0.0   0.0    0:00.01 kblockd/0
   30 root      10  -5    0    0    0  S  0.0   0.0    0:00.30 khudd
   32 root      20  -5    0    0    0  S  0.0   0.0    0:00.00 kseriod
  
```

Answer option B is incorrect. The bg command can be used to resume in the background when a process is suspended.

Answer option C is incorrect. There is no such command as job.



**QUESTION NO: 99**

All network interface settings are stored in /etc/sysconfig/network-scripts/ directory. Which of the following tools are used to read the interface configuration files?

Each correct answer represents a complete solution. Choose all that apply.

- A. ifup
- B. system-config-services
- C. system-config-network
- D. ifdown

**Answer: A,C,D**

**Explanation:**

The Interface configuration files are read by system-config-network, ifup, ifdown, and other tools that bring network interfaces up and down.

Answer option B is incorrect. The system-config-services tool is used to manage services in Linux.

**QUESTION NO: 100**

You work as a Network Administrator for Perfect Solutions Inc. The company has a Linux-based network. You are a root user on the Red Hat operating system. You want to know which directory you are currently working on. Which of the following tools would you use to accomplish the task?

- A. ls
- B. pwd
- C. mv
- D. cd

**Answer: B**

**Explanation:**

The pwd command-line utility is used to display the current working directory.

What is the pwd command?

The pwd command prints the complete pathname of the current working directory to the standard output.

pwd [ -L | -P ]

The options are described as follows:

OptionDescription

-LDisplays the logical current working directory.

-PDisplays the physical current working directory.

If no options are specified, the -L option is assumed.

Answer option A is incorrect. The ls command lists the contents of the current directory or the specified directory.



Answer option D is incorrect. The `cd` command with no argument is used to move to your home directory.

Answer option C is incorrect. The `mv` command is used to move and/or rename files and directories.

### QUESTION NO: 101

Which of the following commands are used to remove a package from a Linux system?  
Each correct answer represents a complete solution. Choose two.

- A. `yum -rm packagename`
- B. `yum remove packagename`
- C. `yum -r packagename`
- D. `yum erase packagename`

**Answer: C,D**

#### Explanation:

The `yum remove packagename` and `yum erase packagename` commands are used to remove a specified package from a Linux system. If any packages depend on this package, yum will prompt about this and give the option to remove those packages too.

Answer options A and C are incorrect. These commands are incorrect. The `-r` and `-rm` options are not used with the `yum` command to remove a package from a Linux system.

### QUESTION NO: 102

You work as a Network Administrator for McNeil Inc. The company has a Linux-based network. You have just created a directory named `Sales` on a file server. David, a Sales Manager, has to use this directory to keep sales reports. David reports that he is unable to save his reports in the directory.

When you list the directory using the `LS` command, you get the following result:  
`drwxr-xr-x 2 root root 2048 Jan 2 2006 Sales` What is the most likely cause?

- A. David does not have the Write permission on the directory.
- B. David is working on his local computer's login.
- C. The `Sales` directory has been deleted by accident.
- D. The `Sales` directory is not properly mounted.

**Answer: A**

#### Explanation:

The most likely cause of the issue is that David does not have the Write permission on the `Sales` directory.

The listing of the directory shows that root is the owner of the Sales directory. The permissions on the Sales directory are `rw-r-xr-x`. The permission character set has three sets of three permissions that are Read, Write, and Execute. The first set, which is `rw-`, represents the Read, Write, and Execute permissions to the owner of the file. The second set, which is `-r-x`, provides the Read and Execute permissions to the group root. The third set, which is `-r-x`, provides the Read and Execute permissions to other users.

In order to resolve the issue, you will have to make David the owner of the Sales directory. For this, you will have to run the following command:

```
chown david sales
```

After becoming the owner of the directory, David will automatically get the Write permission, and he will be able to store his files in the directory.

Setting permissions on files and folders in Linux

Answer option B is incorrect. As the listing shows that David is not the owner of the folder, this will not make any difference.

Answer options D and C are incorrect. According to the question, the directory is properly listed, and mounting or deletion is not an issue.

### QUESTION NO: 103

Which of the following commands can you use to see only the last ten lines of a file?

Each correct answer represents a complete solution. Choose all that apply.

- A. head
- B. tail -10
- C. head -10
- D. tail

**Answer: C,D**

#### Explanation:

The tail or tail -10 command can be used to see only the last ten lines of a file. The tail -n command is used to see the last n lines of a file. By default, the tail command shows the last 10 lines of a file.

Answer options A and C are incorrect. The head or head -10 command can be used to see only the first ten lines of a file. The head -n command is used to see the first n lines of a file. By default, the head command shows the first 10 lines of a file.

### QUESTION NO: 104

Which of the following utilities can be used to manage dictionaries?

- A. tee
- B. cat
- C. aspell
- D. dict

**Answer: C**

### Explanation:

aspell is a utility that can function as an ispell -a replacement, as an independent spell checker, as a test utility to test out Aspell features, and as a utility for managing dictionaries.

Syntax:

aspell [options]

Some important options used with aspell are as follows:

Options	Description
-list	It produces a list of misspelled words from standard input.
filter	It passes standard input through the same set of filters that would be used to spell check a document.
-v,version	It prints version number and exit.
config	It prints the current value of an option.

itexamworld.c

The following options may be used with the aspell command to control which dictionaries to use and how they behave:

Options	Description
-d,-master=string	If this option is specified then Aspell will either use this dictionary or die.
-dict-dir=dir	It is the location of the main word list.
-l,-lang=string	It specifies the language to use, it follows the same format of the LANG environmental variable on most systems.
-size=string	It specifies the preferred size of the word list.
--word-list-path=list	It searches path for word list information files.

itexamworld.c

Answer option A is incorrect. The tee command is used to split the output of a program so that it can be seen on the display and also be saved in a file. It can also be used to capture intermediate output before the data is altered by another command or program. The tee command reads standard input, then writes its content to standard output, and simultaneously copies it into the specified file(s) or variables.

The syntax of the tee command is as follows: tee [-a] [-i] [File] where, the -a option appends the output to the end of File instead of writing over it and the -i option is used to ignore interrupts.

Answer option B is incorrect. The concatenate (cat) command is used to display or print the contents of a file.

Syntax:

cat filename

For example, the following command will display the contents of the /var/log/dmesg file:

cat /var/log/dmesg

Note: The more command is used in conjunction with the cat command to prevent scrolling of the screen while displaying the contents of a file.

Answer option D is incorrect. There is no such utility as dict in Linux.

**QUESTION NO: 105**

You work as a Network Administrator for Perfect Solutions Inc. The company has a Linux-based network. You want to view the status of the current processes running on a Linux computer. You also want to save the output to the ProStat.txt file. Which of the following commands will you use to accomplish the task?

- A. `ps < ProStat.txt`
- B. `ps | ProStat.txt`
- C. `ps > ProStat.txt`
- D. `ps`

**Answer: C**

**Explanation:**

The `ps` command reports the status of processes that are currently running on a Linux computer. What is `>` command?

The `>` command is used for storing the output generated by different commands. It creates a file specified to store the output. If the specified file already exists, it overwrites that file.

**QUESTION NO: 106**

John works as the Network Technician for Tech Perfect Inc. The company has a Linux-based network.

John wants to view a PDF document on his Linux system. Which of the following commands should John use to accomplish the task?

- A. `ps2pdf`
- B. `enscript`
- C. `evince`
- D. `a2ps`

**Answer: C**

**Explanation:**

The `evince` utility is used to view PDF files on the Linux operating system.

What is the `evince` command?

The `evince` command is a document viewer capable of displaying multiple and single page document formats such as PDF and Postscript.

Syntax:

**evince [Options] [Filename]**

Option	Description
-p	The page of the document to display
-f	Run evince in full screen mode
-s	Run evince in presentation mode
-w	Run preview as a previewer

evince [Options] [Filename]

Answer options B and D are incorrect. These commands are used to convert a text to PostScript and send it to a file or the print queue.

What is PostScript?

PostScript is a language developed by Adobe Systems for printing documents on laser printers. It can also be adapted to produce images on other types of devices. It is the standard for desktop publishing. Every PostScript printer contains a built-in interpreter that executes PostScript instructions. Level 1, Level 2, and PostScript 3 are three basic versions of PostScript language. Answer option A is incorrect. The ps2pdf utility is used to create PDF files.

#### QUESTION NO: 107

Which of the following statements are true about file permissions?

Each correct answer represents a complete solution. Choose three.

- A. The execute permission means that the file can be run if it is a program or script.
- B. The write permission means that the file can be edited and saved.
- C. The read permission means that only the file name can be read not the contents of the file.
- D. The read permission means that the contents of the file can be seen with a command such as cat or less.

**Answer: A,B,D**

#### Explanation:

The read permission allows a user to read a file. The content of a file can be seen by cat or less commands. When the read permission is set for a directory, it allows a user to read the names of files in the directory (but not to find out any other information about them including file type, ownership, size, etc.).

The write permission means that a user is permitted to write in a file. So, if a file has the write permission it can be edited and saved.

The execute permission grants a user the ability to execute a file. This permission must be set for executable binaries.

Answer option C is incorrect. If a file has the read permission, its contents can also be read not only the file name.

**QUESTION NO: 108**

Which of the following commands is used to mount file systems?

- A. detach
- B. attach
- C. mount
- D. umount

**Answer: C**

**Explanation:**

In Linux, the mount command is used to mount and display disks, partitions, and file systems. Mounting refers to the process in which the operating system prepares the media to be read.

Note: The swap file system cannot be mounted using the mount command.

Answer option D is incorrect. In Linux, the Umount command is used to unmount a file system from its mount point.

Answer options A and B are incorrect. There are no such commands as attach and detach in Linux.

**QUESTION NO: 109**

You work as a Network Administrator for company.com Inc. The company has a Linux-based network. You are working as a root user on the Linux operating system. You want to rearrange the order of jobs in a spooling queue according to your requirement. Which of the following commands will you use to accomplish the task?

- A. lpq
- B. lpc
- C. lprm
- D. lpr

**Answer: B**

**Explanation:**

The lpc command can be used to rearrange jobs awaiting printing, as well as to disable/enable a printer or queue and find the status of printers.

Answer option D is incorrect. The lpr sends a job to the queue to be printed.

Answer option A is incorrect. The lpq views the contents of the queue.

Answer option C is incorrect. The lprm removes a job from the queue.

**QUESTION NO: 110**

You have recently been appointed as a Network Administrator for Rick International Inc. The company has a Linux-based network. You have to print an important file named secure.txt urgently.

You therefore want to know what printers are currently configured on your computer and how you can connect to them. Which of the following commands will you use to accomplish the task?

- A. lpstat -p
- B. lpstat -s
- C. lpstat -d
- D. lpr

**Answer: B**

**Explanation:**

You will use the lpstat -s command to accomplish the task. The lpstat -s command gives you information about what printers are configured on your computer and how you can connect to them.

Answer option A is incorrect. The lpstat -p command is used to list the printers configured on your computer.

Answer options C and D are incorrect. The lpstat -d and lpr commands are used to list the default printer on your computer.

**QUESTION NO: 111**

You are a newly appointed Technician for company.com Inc. You are working on the Red Hat operating system. As you are about to leave for some important work, you want to shut down your system immediately. Which of the following commands can you use to accomplish this?

Each correct answer represents a complete solution. Choose all that apply.

- A. halt -h
- B. /sbin/stop
- C. shutdown -h now
- D. poweroff -h

**Answer: A,C,D**

**Explanation:**

The shutdown -h now, halt -h, and poweroff -h commands can be used to shut down the Red Hat operating system immediately.

Answer option B is incorrect. This is an invalid answer and hence cannot be used to shut down the system.



**QUESTION NO: 112**

You work as the Network Administrator for Perfect solution Inc. The company has a Linux-based network. You are a root user on the Red Hat operating system. You want to see only 10 results in a search for files that have an .html extension. Which of the following commands should you use to accomplish the task?

- A. locate "\*.html"
- B. locate 10 .html
- C. locate -n 10 "\*.html"
- D. locate "\*.html" -q

**Answer: C**

**Explanation:**

The locate command queries a database for all pathnames which match the specified pattern. The -n option followed by an integer limits the results to a specific number. This command would display only 10 results in a search for files that have an .html extension.

What is the locate command?

The locate command queries a database for all pathnames which match the specified pattern. The database is updated periodically (usually weekly or daily), and contains the pathnames of all files which are publicly accessible.

Syntax for the locate command is as follows: locate [options] pattern ...

Here, pattern means one or more file patterns.

The following options are used with the locate command:

OPTIONS	DESCRIPTION
-S	It print some statistics about the database and then exits.
-c	It suppresses normal output; instead prints a count of matching file names.
-i	It ignores case distinctions in both the pattern and the database.
-0	It prints pathnames separated by an ASCII NUL character (character code 0) instead of del character code 10)

Answer option A is incorrect. This command uses the star wildcard to display all files on the system that have the .html filename extension.

Answer option D is incorrect. The -q option is used to suppress error messages, such as those that might be returned in the event that the user does not have permission to access designated files or directories. Thus, this command would suppress any error messages regarding to this search.

Answer option B is incorrect. When this command is run on the terminal an error message will be displayed on the screen.

**QUESTION NO: 113**

You want to append a tar file if the on-disk version of the tar file has a modification date more recent than its copy in the tar archive. Which of the following commands will you use to accomplish the task?

- A. tar -x
- B. tar -t
- C. tar -u
- D. tar -c

**Answer: C**

**Explanation:**

The tar -u command is used to append a tar file if the on-disk version of the tar file has a modification date more recent than its copy in the tar archive.

Answer option B is incorrect. The tar -t command is used to list the contents of an archive.

Answer option A is incorrect. The tar -x command is used to extract the files from an archive.

Answer option D is incorrect. The tar -c command is used to create a new archive of specified files.

**QUESTION NO: 114**

You work as a Network Administrator for company.com Inc. The company has Linux-based network.

You want to search for files anywhere on the system that end in .txt. Which of the following commands will you use to accomplish the task?

- A. find /etc -name \*.txt
- B. find /etc -name \*.txt\*
- C. find /etc -name \*txt
- D. find /etc name \*.txt

**Answer: A**

**Explanation:**

find /etc -name \*.txt command is used to search for files anywhere on the system that end in .txt. What is the find command?

The find command can perform a search based on a variety of search limitations. It searches through one or more directory tree(s) of a filesystem, locating files based on some user-specified criteria. By default, find returns all files in the current working directory. Further, find allows a user to specify an action to be taken on each matched file.

Thus, it is an extremely powerful command for applying actions to many files.

The find command can be used with a wild card (\*), but it works best when we know the name of the file or directory we are looking for.

The find command can search your system for files that comply with certain numeric criteria, such as the size of the file (-size), the number of links to the file (-links), the date of the last change to the file's data (-mtime), or the date of the last time the file was read (-atime). All these criteria accept a numeric value. When a numeric value is provided to find, it looks for an exact match, more than the number, or less than the number.

Answer options D, B, and C are incorrect. There is no such commands in the Linux.

**QUESTION NO: 115**

Which of the following commands can be used to convert all lowercase letters of a text file to uppercase?

- A. tac
- B. cat
- C. tr
- D. less

**Answer: C**

**Explanation:**

You can use the tr command to convert all lowercase letters of a text file to uppercase. The tr command is used to translate, squeeze, and/or delete characters from standard input, writing to standard output. If you want to change all lowercase letters to uppercase, you will use the tr [a-z] [A-Z] command.

Answer options B, A, and D are incorrect. The cat, tac, and less commands are used to display the output of the text file on the screen. These commands cannot translate the text from one form to another.

**QUESTION NO: 116**

You are required to define a cron job that executes at 5:30 PM every Friday. Which of the following time specifications can be set to accomplish the task?

Each correct answer represents a complete solution. Choose two.

- A. 17 30 \* \* 6
- B. 30 17 \* \* 5
- C. 17 30 \* \* FRI
- D. 30 17 \* \* FRI

**Answer: B,D**

**Explanation:**

According to the question's requirement, the following time specifications can be set for the cron job:

30 17 \* \* 5

30 17 \* \* FRI

In this time specification, you can define five parameters. The first two parameters define minutes and hours of the day. The last or the fifth parameter shows the day of the week. It can be the name or the number of a day. Numbers 0 and 7 are for Sunday, whereas from Monday to Saturday, the numbers are from 1 to 6.

### QUESTION NO: 117

You want to run a program in future. However, you do not want to run it more than once. Which of the following commands will you use to accomplish the task?

- A. rsync
- B. at
- C. crontab
- D. sync

**Answer: B**

#### Explanation:

In order to accomplish the task, you will use the at command. The at command is used to set a specific command or batch file to execute at a certain time.

Syntax:

at [option] schedule time

Several options are used with the at command. Following is a list of some important options:

Option	Description
-q	Uses the specified queue.
-m	Sends a mail to a user when a job is completed.
-f file	Reads a job from a file.
-l	Reports all jobs scheduled for the invoking user. It works in the same manner as the atq command.

The atd daemon monitors the queue of the at commands and executes them at a specified time.

Example:

The following command will create a list of jobs to be executed at 8:00 AM on 22nd August 2004 .  
at 08:00 22.08.2004

at> ls<enter>

at> pwd<enter>

<ctrl> + <d>

The <ctrl> + <d> key combination is used to end the list of commands.

The jobs can be removed from an at queue by using the atrm command.

Note: The at command cannot schedule recurring jobs.

Answer option C is incorrect. You will not run the crontab command, since it runs a program repeatedly. The crontab command is used to view and edit the crontab files, which are used to

organize the cron facility. Each user has access to the cron facility through a crontab file. Some of the frequently used crontab command options are as follows:

Option	Description
-e	Edits the crontab file.
-u	Operates on another user's crontab file instead of its own. Only root can edit or delete the crontab file.
-r	Removes the crontab file.
-l	Displays the contents of the crontab file.

Answer option A is incorrect. In computing, rsync is a software application for Unix systems. It synchronizes files and directories from one location to another while minimizing data transfer using delta encoding. It can copy or display directory contents and copy files, optionally using compression and recursion.

In daemon mode, rsync listens to the default TCP port of 873, serving files in the native rsync protocol or via a remote shell such as RSH or SSH. In the latter case, the rsync client executable must be installed on both the local and remote hosts.

Answer option D is incorrect. The sync command is used to flush filesystem buffers. It ensures that all disk writes have been completed before the processor is halted or rebooted. Generally, it is preferable to use reboot or halt to shut down a system, as they may perform additional actions such as resynchronizing the hardware clock and flushing internal caches before performing a final sync.

#### QUESTION NO: 118

Which of the following commands is used to count the number of bytes in a file?

- A. wc -l filename
- B. wc -c filename
- C. wc -m filename
- D. wc -w filename

**Answer: B**

#### Explanation:

The -c option with the wc command is used to count the number of bytes in a file. It shows only the number of bytes used by a file.

Answer option A is incorrect. The -l option with the wc command is used to count the number of lines in a file. It shows only the number of lines in a file.

Answer option D is incorrect. The -w option with the wc command is used to count the number of words in a file. It shows only the number of words in a file.

Answer option C is incorrect. The -m option with the wc command is used to count the number of characters in a file.

**QUESTION NO: 119**

You are the Network Administrator for Perfect solutions Inc. The company has a Linux-based Network. You are a root user on the Red Hat operating system. You want to move a file from one location to another. Which of the following commands should you use to accomplish this task?

- A. cp
- B. ls
- C. move
- D. mv

**Answer: D**

**Explanation:**

The mv command is used to move a file from one location to another.

**QUESTION NO: 120**

You work as a Network Administrator for Net Perfect Inc. The company has a Linux-based network.

You have created a folder named Report.

You have made David the owner of the folder. The members of a group named JAdmin can access the folder and have Read, Write, and

Execute permissions. No other user can access the folder. You want to ensure that the members of

the JAdmin group do not have Write permission on the folder. Also, you want other users to have Read permission on the Report folder.

Whizh of the following commands will you use to accomplish the task?

- A. chmod 777 report
- B. chmod 754 report
- C. chown david.jadmin report
- D. chmod 555 report

**Answer: B**

**Explanation:**

The chmod command is used to change or edit file/folder permissions in Linux. In order to accomplish the task, you will have to run the following command:

chmod 754 report

This will provide Read, Write, and Execute permissions to the owner (in this case, David), Read and

Execute permissions to the members of the JAdmin group, and only Read permission to other

users.

Answer option D is incorrect. This will provide Read, Write, and Execute permissions to David, to the members of the JAdmin group, and to other users.

Answer option A is incorrect. This will provide Read and Execute permissions to David, to the members of the JAdmin group, and to other users.

Answer option C is incorrect. The chown command is used to change the ownership on files or folders.

#### QUESTION NO: 121

John works as a Network Administrator for Perfect Solutions Inc. The company has a Linux-based network. John is working as a root user on the Linux operating system. Which of the following commands will John use to display information about all mounted file systems?

Each correct answer represents a complete solution. Choose all that apply.

- A. df
- B. du
- C. ls
- D. df -m

**Answer: A,D**

#### Explanation:

According to the scenario, John can use any of these two commands. The df command will display information about all mounted file systems in KB while the df -m command will display information in MB.

#### QUESTION NO: 122

You work as a Network Administrator for McRoberts Inc. The company has a Linux-based network.

You have created a script named lf.cgi. You want to provide the following permissions on it: rwsr-sr-- Which of the following commands will you execute?

- A. chmod 2754
- B. chmod 4754
- C. chmod 6754
- D. chmod 7754

**Answer: C**

#### Explanation:



According to the question, the permission set requires setting SID with the owner and the group. Moreover, the Read, Write, and Execute permissions on the script file are required for the owner, Read and Execute permissions for the group, and Read permission for others.

The chmod command is used to change the permissions. The last three digits, i.e., 754 will provide the required permissions to the owner, group, and others. The digit 7 will provide the Read, Write, and Execute permissions to the owner.

The digit 5 will provide the Read and

Execute permissions to the group. The digit 4 will provide the Read permission to others.

According to the question, you have to set SID for the owner and users. For the owner (SUID), you will have to add 4 as a prefix to the permission number. For the group (SGID), you will have to add 2 as a prefix to it. For setting both the

SIDs (SUID and SGID), you will have to add 6 as a prefix to the permission set. Hence, in order to accomplish the task, you will have to run the following command:

```
chmod 6754
```

This will set the SID for the owner and group on the permission set of the lf.cgi script file. When SID is set, the Execute permission symbol x is replaced with s.

#### QUESTION NO: 123

You want to terminate your X session. Which of the following key combinations will you use to accomplish this?

- A. Ctrl+Alt+F7
- B. Ctrl+Alt+Backspace
- C. Ctrl+Alt+Fn
- D. Ctrl+Alt+A

**Answer: B**

#### Explanation:

The Ctrl+Alt+Backspace key combination is used to terminate the X session.

Answer option A is incorrect. The Ctrl+Alt+F7 key combination is used to switch from a virtual console back to the X terminal.

Answer option C is incorrect. The Ctrl+Alt+Fn key combination is used to switch from graphical mode to the nth (n varies from 1-6) virtual console running in text mode.

Answer option D is incorrect. Ctrl+Alt+A is not a valid key combination to terminate the X session.

#### QUESTION NO: 124

You work as a Network Administrator for company.com Inc. The company has a Linux-based network. You want to disable a printer from the network. Which of the following commands will you use to accomplish the task?

- A. lpq
- B. lprm
- C. lpc
- D. lpr

**Answer: C**

**Explanation:**

The lpc command is used to check the status of printers, enable and disable printers, and change the arrangement of jobs in the print queue.

Answer option D is incorrect. The lpr command sends a job to the queue to be printed.

Answer option A is incorrect. The lpq command views the contents of the print queue.

Answer option B is incorrect. The lprm command removes a job from the print queue.

**QUESTION NO: 125**

You work as the Network Administrator for McNeil Inc. The company has a Linux-based Network. You are a root user on the Red Hat operating system. You see the following permissions on a file:

-rwxr-----

What operations can be performed on the file?

Each correct answer represents a complete solution. Choose two.

- A. The file can be read by its owner.
- B. The file cannot be read by its owner.
- C. The file can be read by any user.
- D. The file can be read by its owner and member of its owning group.

**Answer: A,D**

**Explanation:**

The read permission has been assigned to the owner of the file and the read permission has also been assigned to members of its owning group.

The first field - represents the type of a file and the next three characters (rwx) represent the permission given to the owner of the file then the next three characters (r--) represent the permission given to the group to which the file belongs and the last three characters (---) represent the permission given to others.

Answer option C is incorrect. No permission has been assigned to others users.

**QUESTION NO: 126**

John works as a Network Administrator for Perfect Solutions Inc. The company has a Linux-based network. John is working as the root user on the Linux operating system. He wants to copy all files

with the .dat extension from /home/john to /home/maria while preserving the file attributes, such as timestamps, mode, and ownership. Which of the following commands will he use to accomplish the task?

- A. `cp -p /home/john/*.dat /home/maria`
- B. `cp -R /home/john/*.dat /home/maria`
- C. `cp -l /home/maria/*.dat /home/john`
- D. `cp -l /home/john/*.dat /home/maria`

**Answer: A**

**Explanation:**

According to the scenario, since John wants to copy all files with the .dat extension from /home/john

to /home/maria while preserving the file

attributes such as timestamps, mode, and ownership, he will use the `cp -p /home/john/*.dat /home/maria` command to accomplish the task. The `cp -p` command copies files from source to destination while preserving the file attributes, such as timestamps, mode, and ownership.

Answer option B is incorrect. The `cp -R /home/john/*.dat /home/maria` command will recursively copy all .dat files from source to destination; however, it will not preserve the file attributes.

Answer option D is incorrect. The `cp -l /home/john/*.dat /home/maria` command will link all .dat files from /home/john to /home/maria instead of copying them.

Answer option C is incorrect. The `cp -l /home/maria/*.dat /home/john` command will link all .dat files from /home/maria to /home/john instead of copying them.

**QUESTION NO: 127**

You work as a Network Administrator for Perfect World Inc. The company has a Linux-based network. You have configured a Linux server to connect to the Internet. Before connecting it to the Internet, you want to check all the files on which SUID has been set. Which of the following commands will you choose to list all such programs?

- A. `find /-perm -2000`
- B. `ls -l`
- C. `ls -suid`
- D. `find /-perm -4000`

**Answer: D**

**Explanation:**

In order to accomplish the task, you will have to execute the following command: `find /-perm -4000`

This command will search the current directory and its sub-directories for all the files on which

SUID has been set.

Answer options C and B are incorrect. The ls command is used to list all files in the current directory and its subdirectory.

Answer option A is incorrect. This will find all the files on which SGID is set.

### QUESTION NO: 128

John works as the Network Technician for Tech Perfect Inc. The company has a Linux-based network.

John is a root user on the Red Hat operating system. John has two files named foo.txt and student.txt, which are too long. John wants to view the output of both the files on one screen at a time. Which of the following commands should John use to accomplish this task?

- A. touch foo.txt student.txt
- B. cat foo.txt | student.txt
- C. cp foo.txt student.txt
- D. cat foo.txt student.txt | less

**Answer: D**

#### Explanation:

The cat command concatenates both files foo.txt and student.txt together and | (pipe) will send the standard output of the cat command to the standard input of the less command, and this will show the output of both files on one screen at a time.

### QUESTION NO: 129

Which of the following commands displays the inode number of a file in the Linux operating system?

- A. cat
- B. ls -i
- C. ls -l
- D. ls

**Answer: B**

#### Explanation:

A file's inode number can easily be found by using the ls command with the -i option.

What is an inode?

An inode is a data structure in Unix file systems, which holds key information about a file. A file is uniquely identified by its

inode number. An inode contains the following information about a file:

Owner's user identification number

Owner's group identification number

Device on which the inode resides

Locking information of the file

Mode and type of file

Number of links to the file

Size of the file

Access and modification time of the file

Modification time of the inode

Addresses of the blocks of the file on the disk

Answer option D is incorrect. ls without arguments lists the names of files and directories in the current directory.

Answer option A is incorrect. The cat command only displays the contents of a file, not the file's inode number.

Answer option C is incorrect. This command displays the long listing of files and directories. It will not display the inode number of a file.

### QUESTION NO: 130

You work as the Network Administrator for Tech perfect Inc. The company has a Linux-based network. You are a root user on the Red Hat operating system. You want to view all files created after the myfile.txt file. Which of the following commands should you use to accomplish the task?

- A. find -newer myfile.txt
- B. find -new myfile.txt
- C. find -recent myfile.txt
- D. find -not newer myfile.txt

**Answer: A**

#### Explanation:

This command when used with the mtime option will list all files created after the myfile.txt file.

The find command searches system for files that comply with certain numeric criteria such as, the date of the last change to the file's data (-

mtime), the date of the last change metadata (-ctime) or the date of the last time the file was read (-

atime). There are also corresponding timestamp matching criteria that perform searches in times relative to the timestamps of other files

using -anewer, -cnewer and -newer, which tests mtime.

**QUESTION NO: 131**

Which of the following key-combinations are used to view a file in two windows in a single vim screen?

Each correct answer represents a complete solution. Choose two.

- A. Ctrl-w, v
- B. Ctrl-w, s
- C. :wq
- D. :q!

**Answer: A,B**

**Explanation:**

A file can be viewed in two windows in a single vim screen by issuing Ctrl-w, s and Ctrl-w, v. The Keycombination

Ctrl-w, s splits the vim screen horizontally. The key-combination Ctrl-w, v splits the screen vertically.

Answer option C is incorrect. The Key-combination :wq is used to save a file and quit from the file in a vim text-editor.

Answer option D is incorrect. The key combination :q! is used to quit from a file without saving its contents.

What is vim?

Vim is an advanced text editor that seeks to provide the power of the Unix editor vi with a more complete feature set. Vim is useful whether a user is already using vi or using a different editor.

Vim is a highly configurable text editor built to enable efficient text editing. It is an improved version of the vi editor distributed with most Unix systems. It is perfect for all kinds of text editing, from composing email to editing configuration files.

**QUESTION NO: 132**

You work as a Network Administrator for Tech Perfect Inc. The company has a Linux-based network.

You run the following command on the terminal: `find -name "*.conf" -exec cp {} {} .orig \;`

What will this command do?

- A. It will extract the content of configuration files from the current directory.
- B. It will search configuration files from the current directory and a .orig extension.
- C. It will back up configuration files from the current directory and a .orig extension.
- D. It will fix other-writable files in your home directory.

**Answer: C**

**Explanation:**

When you will execute `find -name "*.conf" -exec cp {} {} .orig \;` command on the terminal, it will back up configuration files from the current directory and a .orig extension.

What is the find command?

The find command can perform a search based on a variety of search limitations. It searches through one or more directory tree(s) of a filesystem, locating files based on some user-specified criteria. By default, find returns all files in the current working directory. Further, find allows a user to specify an action to be taken on each matched file.

Thus, it is an extremely powerful command for applying actions to many files.

The find command can be used with a wild card (\*), but it works best when we know the name of the file or directory we are looking for.

The find command can search your system for files that comply with certain numeric criteria, such as the size of the file (-size), the number of links to the file (-links), the date of the last change to the files data (-mtime), or the date of the last time the file was read (-atime). All these criteria accept a numeric value. When a numeric value is provided to find, it looks for an exact match, more than the number, or less than the number.

Answer options B and A are incorrect. These options are invalid.

Answer option D is incorrect. To fix other-writable files in your home directory, you will run `find ~ -perm -002 -exec chmod o-w {} \;`.

**QUESTION NO: 133**

Which of the following utilities will resume suspended jobs from the current environment if job control is enabled?

- A. jobs
- B. bg
- C. top
- D. fg

**Answer: B**

**Explanation:**

The bg utility resumes suspended jobs from the current environment by running them as background jobs if job control is enabled. If the job specified by job\_id is already a running background job, the bg utility will have no effect and shall exit successfully. Using bg to place a job into the background will cause its process ID to become "known in the current shell execution environment", as if it had been started as an asynchronous list.

Answer option D is incorrect. The fg utility continues a stopped job by running it in the foreground, some shells are not able to run this command.

Syntax:

`fg [%job]` Where %job specifies the job that a user wants to run in the foreground.



Answer option A is incorrect. The jobs command lists the jobs that are running in the background and in the foreground. If the prompt is returned with no information, no jobs are present.

Syntax: jobs [-p | -l] [-n] [-p] [-x] [job id]

Some important options used with jobs command are as follows:

Option	Description
-t	It displays only jobs that have stopped or exited since last notified.
-p	It displays only the process IDs for the process group leaders of the selected jobs.
-x	It replaces any job_id found in command or arguments with the corresponding process group ID, and then executes the command.
job id	It specifies the job id.

Answer option C is incorrect. The top command is used to produce a frequently-updated list of processes. By default, the processes are ordered by percentage of CPU usage, with only the "top" CPU consumers shown. This command shows how much processing power and memory are being used, as well as other information about the running processes. The following figure demonstrates the output of the top command:

```

top - 14:16:18 up 1 day, 2:21, 7 users, load average: 0.99, 0.77, 0.74
Tasks: 82 total, 3 running, 79 sleeping, 0 stopped, 0 zombie
Cpu(s): 62.0%us, 5.3%sy, 0.0%ni, 32.7%id, 0.0%wa, 0.0%hi, 0.3%si, 0.0%st
Mem: 514068k total, 507096k used, 6972k free, 38628k buffers
Swap: 2867192k total, 0k used, 2867192k free, 182324k cached

  PID USER      PR  NI  VIRT  RES  SHR  S %CPU  %MEM    TIME+  COMMAND
 3322 albert    16   0 199m 113m 23m  F 40.4  22.7 509:16.86 firefox-bin
 2977 root       5  -10 78560 52m 8128  S 13.6  10.5 49:18.01 Xorg
 3080 albert    15   0 20192 11m 9348  S  6.3   2.2 2:56.19 metacity
 3082 albert    16   0 38020 16m 13m  F  5.3   3.3 8:42.89 gnome-panel
 4510 albert    16   0 20012 10m 8716  S  1.0   2.1 0:01.22 screenshot
 4495 albert    15   0 3024 1304 1032  F  0.7   0.3 0:00.93 top
 4507 albert    15   0 33052 23m 11m  S  0.7   4.6 0:10.02 gimp
 4472 albert    15   0 7756 3344 2728  S  0.3   0.7 0:00.29 xterm
    1 root      15   0 2488 856 744  S  0.0   0.2 0:02.30 init
    2 root      34  19   0   0   0  S  0.0   0.0 0:00.00 ksoftirqd/0
    3 root       RT   0   0   0   0  S  0.0   0.0 0:00.00 watchdog/0
    4 root      10  -5   0   0   0  S  0.0   0.0 0:01.73 events/0
    5 root      10  -5   0   0   0  S  0.0   0.0 0:00.03 khelper
    6 root      10  -5   0   0   0  S  0.0   0.0 0:00.00 kthread
   25 root      10  -5   0   0   0  S  0.0   0.0 0:00.01 kblockd/0
   30 root      10  -5   0   0   0  S  0.0   0.0 0:00.30 khubd
   32 root      20  -5   0   0   0  S  0.0   0.0 0:00.00 kserio

```

## QUESTION NO: 134

You work as a Network Administrator for Perfect Solutions Inc. The company has a Linux-based network. Rick, a Sales Manager, has a permission issue on a file. You want to know the names of groups of which Rick is a member. You want to store the information in a text file named RickGroup.txt. Which of the following commands will you use to accomplish the task?

- A. ls rick /etc/group > RickGroup.txt
- B. ls /etc/group rick > RickGroup.txt
- C. grep /etc/group rick > RickGroup.txt
- D. grep rick /etc/group > RickGroup.txt

**Answer: D**

**Explanation:**

The /etc/group file contains group information. This file shows which users are members of which groups.

**QUESTION NO: 135**

Which of the following environmental variables represents the PID value of the last child process?

- A. \$?
- B. \$!
- C. \$!!
- D. \$\$

**Answer: B**

**Explanation:**

The \$! environmental variable represents the PID value of the last child process.

Answer option D is incorrect. The \$\$ environmental variable represents the PID of the running shell.

Answer option A is incorrect. The \$? environmental variable results in the value zero if the last command was executed successfully, otherwise it displays the value one.

Answer option C is incorrect. It is an invalid Linux standard environmental variable.

**QUESTION NO: 136**

Which of the following commands can you use to assign a line number to every line of the install.log file? Each correct answer represents a complete solution. Choose all that apply.

- A. sed = install.log
- B. nl install.log
- C. wc -c install.log
- D. wc -m install.log

**Answer: A,B**

**Explanation:**

The nl install.log and sed = install.log commands can be used to assign a line number to every line of the install.log file.

Answer options C and D are incorrect. The wc -c install.log and wc -m install.log commands will print the number of bytes and the number of characters, respectively.

**QUESTION NO: 137**

You work as the Network Administrator for McNeil Inc. The company has a Linux-based network. You are a root user on the Red Hat operating system. You want to see first five lines of the file `/etc/passwd`. Which of the following commands should you use to accomplish the task?

- A. `head /etc/passwd`
- B. `head -n 5 /etc/passwd`
- C. `tail -n 5 /etc/passwd`
- D. `head 5 -n /etc/passwd`

**Answer: B**

**Explanation:**

The `head -n 5 /etc/passwd` command will show the first 5 lines of the file `/etc/passwd`.

**QUESTION NO: 138**

Fill in the blank with appropriate word. The----- command copies files between hosts on a network. It uses ssh for data transfer, and uses the same authentication and provides the same security as ssh. It will ask for passwords or passphrases if they are needed for authentication.

- A. SCP

**Answer: A**

**Explanation:**

The `scp` command copies files between hosts on a network. It uses ssh for data transfer, and uses the same authentication and provides the same security as ssh. Unlike `rcp`, `scp` will ask for passwords or passphrases if they are needed for authentication. Any file name may contain a host and user specification to indicate that the file is to be copied to/from that host.

Copies between two remote hosts are permitted.

**QUESTION NO: 139**

You work as the Network administrator for McNeil Inc. The company has a Linux-based network. You are a root user on the Red Hat operating system. You want look for files whose last modified timestamp is exactly five days ago. Which of the following commands should you use to accomplish this task?

- A. find / -mtime 5
- B. find / -mtime +5
- C. find -mtime -5
- D. find / -mtime -5

**Answer: A**

**Explanation:**

This command looks for files on the system whose data has been changed exactly five days ago.

**QUESTION NO: 140**

Which of the following statements are true about open source software?

Each correct answer represents a complete solution. Choose two.

- A. In OSS access to source code by third parties commonly requires the party to sign a nondisclosure agreement.
- B. It is software whose license does not allow for the distribution of the software source's source code.
- C. Open source software and its source code must be freely distributable.
- D. In OSS all users must be able to modify the source code and create derived works.

**Answer: C,D**

**Explanation:**

Open source software is software that has been released under an Open Source Initiative (OSI) certified license. The definition includes 10 criteria, which are described as follows:

Open source software is software that has been released under an Open Source Initiative (OSI) certified license. The definition includes 10 criteria, which are described as follows:

1. Free Redistribution: The license allows any party selling or giving away the software as a component of an aggregate software distribution comprising programs from many different sources.
2. Source code: Anyone can modify the source code.
3. Derived Works: The license must allow changes and derived work under the same conditions as the license of the original software.
4. Integrity of the authors source code: To maintain the integrity of the original authors work, the license may require that changes to the code be provided in patch form.
5. No Discrimination Against Persons or Groups: The license must be nondiscriminatory with respect to persons or group of persons.

Therefore, open source license are forbidden from locking anyone out of the process.

6. No Discrimination Against Fields of Endeavor: The license must not restrict anyone from making use of the software in a specific field of endeavor.

7. Distribution of License: The license can be distributed to all but the rights attached to that

program must apply to all to whom the program is distributed. And no party can execute any additional license.

8. License Must Not Be Specific to a Product: It may not require that the software be part of particular distribution.

9. License Must Not Restrict Other Software: It may not restrict other non-open source software.

10. License Must Be Technology-Neutral: It may not require the use of technology to apply the license.

Answer options B and A are incorrect. These are the characteristics of closed source software.

#### QUESTION NO: 141

Which of the following files does the /var directory NOT contain?

- A. System log files
- B. Kernel files
- C. Email-spools
- D. Print spools

**Answer: B**

#### Explanation:

Kernel files do not change regularly and therefore are contained in the /boot directory, not in the /var directory.

What is the /var directory?

According to the Filesystem Hierarchy Standard, the /var directory contains regularly-changing system files. This comprises spool directories and files, and administrative and logging data.

Answer option A is incorrect. System log files are stored in the /var directory.

Answer options D and C are incorrect. Print spool files and email-spools are variable data files and therefore are contained in the /var directory.

#### QUESTION NO: 142

Which of the following commands will you use to change the home directory of a user and move all of its contents to the new home directory?

- A. usermod -d -m
- B. usermod -g
- C. usermod -o -u
- D. usermod -u

**Answer: A**

**Explanation:**

The `usermod -d -m` command is used to change the home directory of a user as well as move all of its contents to the new home directory.

**QUESTION NO: 143**

Which of the following commands are used to put (paste) data from a buffer into a document in vim?

Each correct answer represents a complete solution. Choose two.

A :set

A. p

B. P

C. ps

**Answer: B,C**

**Explanation:**

The commands to put data from a buffer into the document are `p` and `P`. `p` puts the data below the current line and `P` puts the data above the current line.

What is the `p` command?

The `p` command is used to put (paste) data from a buffer into the document. If data is line oriented (a line or a paragraph), the `p` command will open a new line below the current line and place the data on this line. If data is character oriented (a letter, word, or sentence), the `p` command will place the data after the cursor.

What is the `P` command?

The `P` command is used to put data from a buffer into a document. How this command works depends on the nature of the data in the buffer. If the data is line oriented, the `P` command will open a new a line above the current line and paste the data there. If the data is character oriented, the `P` command will put the data before the cursor. Answer option D is incorrect. The `ps` command displays the status of the current processes in Linux. Answer option A is incorrect. The `:set` command lists a small number of important configuration items in vim.

**QUESTION NO: 144**

You work as a Network Administrator for Perfect Solutions Inc. The company has a Linux-based network. Each Friday evening, you want to delete the temporary files on a Linux server. Which of the following actions will you perform to accomplish the task?

A. Create a recurring CRON job to delete the temporary files on the server.

B. Ask users to delete their temporary files daily.



- C. Ask your assistant to delete all the temporary files at the scheduled time.
- D. Use the at command to create a job to delete the temporary files on the server each Friday evening.

**Answer: A**

**Explanation:**

In order to accomplish the task, you should create a recurring CRON job to delete the temporary files on the server.

**QUESTION NO: 145**

Fill in the blank with the correct answer to complete the statement below.

The \_\_\_\_\_ permission is the minimum required permission that is necessary for a user to enter a directory and list its contents.

- A. Read

**Answer: A**

**Explanation:**

In Linux, the directories are simply special files that have an inode and a data section.

The contents of the data section are a list of the directory's contents. In order to enter a directory or list its contents, a user must have the Read permission on the directory. The Write permission is required to modify that list.

**QUESTION NO: 146**

Which of the following commands are used to start and stop a service, and to ensure persistence across reboots? Each correct answer represents a complete solution. Choose all that apply.

- A. chkconfig
- B. tar
- C. service
- D. yum

**Answer: A,C**

**Explanation:**

The service and chkconfig commands are used to start and stop a service, and to ensure persistence across reboots. The service command is used to abstract the management of services provided by the system. It can be used to start and stop services, as well as to determine the status of services. To execute a given command for a given service, it uses the start, stop, restart,



and reload arguments. Some important options used with the service command are as follows:

Option	Description
--list	List all available services.
--test-if-configured-on	Exit with status 0 if the service is currently enabled. Otherwise, exit with status 1.
--test-if-available	Exit with status 0 if the service's daemon exists on the system. Otherwise, exit with status 1.

The chkconfig tool is used to update and query runlevel information for system services.

Answer option D is incorrect. The yum command automatically attempts to check all configured repositories to resolve all package dependencies during an installation/upgrade.

Answer option B is incorrect. The tape archive (tar) command combines a large number of files into a single file for archival purposes.

## QUESTION NO: 147

Which of the following protocols are used for mail delivery?

Each correct answer represents a complete solution. Choose two.

- A. IMAPS
- B. SMTP
- C. ESMTP
- D. POP3S

**Answer: B,C**

### Explanation:

Mail delivery is most typically done through one of the SMTP family of protocols, either SMTP or ESMTP.

What is the ESMTP protocol?

ESMTP (Extended Simple Mail Transfer Protocol) specifies extensions to the original protocol for sending e-mail that supports graphics, audio and video files, and text in different national languages. The original

Internet protocols for sending e-mail are described in Request for Comments (RFC) 822, Standard for the Format of ARPA

Internet Text Messages, and in RFC 821, Simple Mail Transfer Protocol (SMTP). As users demanded to attach various kinds of files to email, the need for additional facilities arose and resulted in RFC 1869, Extended Simple Mail Transfer Protocol. ESMTP provides the facility for a client e-mail program to ask a server e-mail program which facilities it supports and then communicate accordingly.

Answer options A and D are incorrect. IMAPS and POP3S are used for mail pickup.

What is the POP3S protocol?

Post Office Protocol version 3 (POP3) is the protocol that clients use to pick up mail from servers. Users of POP3 generally store their mail locally on their system and configure their mail client to pick up new mail periodically.

POP3 servers need clients to authenticate with a username and password. This ensures that only

authenticated clients can pick up the user's email. Unfortunately, POP3 is an unencrypted protocol, so the username and password travel in cleartext.

POP3S, on the other hand, is POP3 over Secure Sockets Layer. It provides an encrypted connection for the Post Office Protocol. More significantly, it provides an encrypted connection over which the username and password may be transmitted for authentication purposes.

The departmental mail server provides POP3 (internally) and POP3S (internally and externally). Ultimately, POP3 support will be turned off in favor of IMAPS, which is a more modern protocol that can do everything POP3 can.

#### QUESTION NO: 148

Fill in the blank with the command to complete the statement below. Do not enter the full path of the command.

The \_\_\_\_\_ command is used to remove the print jobs that have been queued for printing by using a secure connection.

A. lprm -E

**Answer: A**

#### Explanation:

The lprm command is used to remove the print jobs that have been queued for printing. If no arguments are supplied, the current job on the default destination is cancelled. The command syntax for the lprm command is as follows:

`lprm [-E] [-U username] [-h server[:port]] [-P destination[/instance]] [-] [job ID(s)]`

where,

Option	Description
-E	Forces encryption when connecting to the server.
-P destination[/instance]	Specifies the destination printer or class.
-U username	Specifies an alternate username.
-h server[:port]	Specifies an alternate server.

#### QUESTION NO: 149

John works as a Network Administrator for Perfect Solutions Inc. The company has a Linux-based network. John is working as a root user on the Linux operating system. He is configuring the Apache Web server settings. He does not want the commands being used in the settings to be stored in the history. Which of the following commands can he use to disable history?

A. history !!

B. set +o history

- C. history !N
- D. set -o history

**Answer: B**

**Explanation:**

According to the scenario, John can use the set +o history command to disable history.

Answer option D is incorrect. John cannot use the set -o history command to accomplish his task.

This command is used to enable disabled history.

Answer option A is incorrect. John cannot use the history !! command to accomplish his task. This command is used to see the most recently typed command.

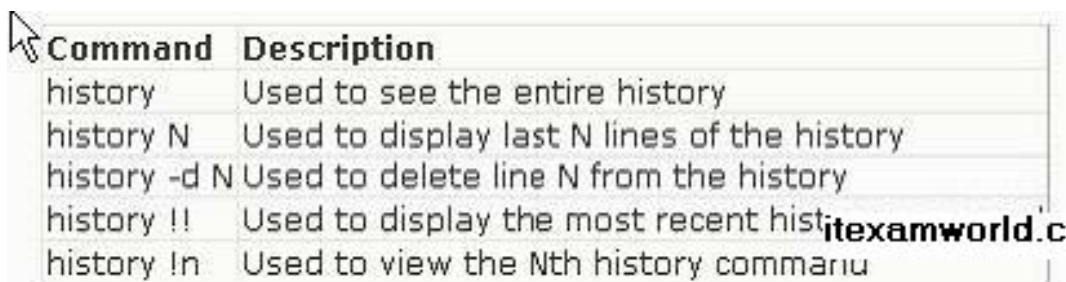
Answer option C is incorrect. John cannot use the history !N command to accomplish his task.

This command is used to display the Nth history command.

What is the history command?

In the bash shell, the history command is used to view the recently executed commands. History is on by default. A user can turn off history using the command set +o history and turn it on using set -o history. An environment variable

HISTSIZE is used to inform bash about how many history lines should be kept. The following commands are frequently used to view and manipulate history:



Command	Description
history	Used to see the entire history
history N	Used to display last N lines of the history
history -d N	Used to delete line N from the history
history !!	Used to display the most recent history command
history !n	Used to view the Nth history command

**QUESTION NO: 150**

You work as the Network Administrator for Tech Perfect Inc. The company has a Linux-based Network. You are working as a root user on the Red Hat operating system. You want to find out the disk space usage of a remote host named York. For this, you have to remotely login to York and run the command to determine how much disk space has been used on per filesystem basis. Which of the following command syntaxes should you use to securely access the data from the remote host?

- A. ssh 'df -h'
- B. York ssh 'df -h'
- C. ssh York 'df -h'
- D. ssh 'df -h' York

**Answer: C**

**Explanation:**

You will use the ssh command to remotely login to the host York and then remotely execute the command 'df -h' to check the disk space usage on the remote system.

**QUESTION NO: 151**

Which of the following commands is used to view failed login attempts on a user account?

- A. lastw
- B. lastb
- C. lastlog
- D. lastf

**Answer: B****Explanation:**

The lastb command is used to view failed login attempts on a user account.

What is the lastb command?

The lastb command is used to view bad login attempts. The command searches in reverse order through the database file named /var/adm/btmp in order to display the required information.

Answer option C is incorrect. The lastlog command reports the most recent logins of all users or of a given user.

Answer options A and D are incorrect. There are no such commands as lastw and lastf in Linux.

**QUESTION NO: 152**

Which of the following is NOT the feature of SELinux in the Red Hat enterprise Linux?

- A. SELinux applies to all users, including root.
- B. All process and files have a context.
- C. SELinux implements Mandatory Access Control (MAC) security in Red Hat Enterprise Linux.
- D. SELinux does not provide Kernel-level security.

**Answer: D****Explanation:**

SELinux is an operating system based on Linux which includes Mandatory Access Control. The SELinux provides Kernel-level security for Red Hat Enterprise Linux.

Answer options C, B, and A are incorrect. These are the features of SELinux.

What are the features of SELinux?

The features of SELinux are as follows:

SELinux provides Kernal-level security.

SELinux implements Mandatory access control (MAC) security in Red Hat Enterprise Linux.

SELinux assigns every file and process on the system a context, identifying its type and purpose. SELinux enforces a policy that dictates which actions a given type of process may take on a given type of file  
SELinux applies to all users, including root.

**QUESTION NO: 153**

You work as a Network Administrator for company.com Inc. The company has a Linux-based network. A job in the print queue is no longer in use. You want to remove this job from the print queue. Which of the following commands will you use to accomplish the task?

- A. lprm
- B. lpc
- C. lpq
- D. lpr

**Answer: A**

**Explanation:**

The lprm command is used to remove a job from the print queue.

Answer option C is incorrect. The lpq command is used to view the content of the print queue.

Answer option D is incorrect. The lpr command sends a job to the print queue.

Answer option B is incorrect. The lpc command is used to control the operation of a line printer system.