### ****Installing and Configuring Linux (Ubuntu and CentOS)****

In Linux, a media type for installation can be:  
a) USB drive  
b) Network share  
c) CD/DVD  
d) All of the above  
**Answer**: d) All of the above

A custom Linux server installation allows you to:  
a) Install the default packages only  
b) Configure network and disk partitions manually  
c) Skip package installation  
d) Automatically set up user permissions  
**Answer**: b) Configure network and disk partitions manually

What is the purpose of Run Levels in Linux?  
a) To define different kernel versions  
b) To specify different boot modes  
c) To control user access to the system  
d) To change the appearance of the terminal  
**Answer**: b) To specify different boot modes

Which command is used to view the current run level in Linux?  
a) ps  
b) runlevel  
c) ls  
d) shutdown  
**Answer**: b) runlevel

Which of the following commands is used to log out of a Linux system?  
a) exit  
b) logout  
c) quit  
d) All of the above  
**Answer**: d) All of the above

### ****Basic Commands****

Which command is used to list the contents of a directory in Linux?  
a) dir  
b) ls  
c) cat  
d) list  
**Answer**: b) ls

The grep command is used for:  
a) Searching for text in a file  
b) Moving files  
c) Copying files  
d) Displaying a file's contents  
**Answer**: a) Searching for text in a file

The rm command in Linux is used to:  
a) Rename a file  
b) Move a file  
c) Delete a file  
d) Copy a file  
**Answer**: c) Delete a file

Which command is used to create a directory in Linux?  
a) mkdir  
b) rmdir  
c) touch  
d) newdir  
**Answer**: a) mkdir

To display the first 10 lines of a file, you would use the command:  
a) head  
b) tail  
c) cat  
d) less  
**Answer**: a) head

### ****Access Control Lists and Permissions****

The chmod command is used to:  
a) Change file ownership  
b) Change file permissions  
c) Change file location  
d) Change file contents  
**Answer**: b) Change file permissions

Which command is used to display the current owner and group of a file?  
a) chown  
b) ls -l  
c) chmod  
d) chgrp  
**Answer**: b) ls -l

Which of the following is NOT a valid option in the chmod command?  
a) r for read  
b) x for execute  
c) s for setuid  
d) g for group  
**Answer**: d) g for group

The chown command is used to:  
a) Change file permissions  
b) Change file ownership  
c) Change file group  
d) Copy files  
**Answer**: b) Change file ownership

### ****Vi/Vim/Gedit Editor****

The vi editor has how many modes?  
a) 1  
b) 2  
c) 3  
d) 4  
**Answer**: c) 3

In vi editor, which mode is used to insert text?  
a) Command mode  
b) Insert mode  
c) Visual mode  
d) Replace mode  
**Answer**: b) Insert mode

To delete a line in vi editor, you would use:  
a) dd  
b) dw  
c) x  
d) dl  
**Answer**: a) dd

In the vi editor, to replace a character under the cursor, you would press:  
a) r  
b) s  
c) x  
d) d  
**Answer**: a) r

In vi, the command to search for a word is:  
a) /  
b) :  
c) ?  
d) ;  
**Answer**: a) /

### ****Linux Shell Programming****

The BASH shell stands for:  
a) Basic Administration Shell  
b) Bourne Again Shell  
c) Binary Application Shell  
d) Basic Accessible Shell  
**Answer**: b) Bourne Again Shell

Which of the following is a shell variable?  
a) $HOME  
b) $\_  
c) $0  
d) All of the above  
**Answer**: d) All of the above

In a shell script, which command is used to read user input?  
a) echo  
b) scanf  
c) read  
d) input  
**Answer**: c) read

The expr command in shell scripts is used for:  
a) String manipulation  
b) Arithmetic operations  
c) User input  
d) File testing  
**Answer**: b) Arithmetic operations

The if-then-else-fi structure in shell scripts is used to:  
a) Handle errors  
b) Perform conditional operations  
c) Define functions  
d) Loop through files  
**Answer**: b) Perform conditional operations

To declare a variable in a shell script, you would use:  
a) varname = value  
b) varname: value  
c) value = varname  
d) declare varname=value  
**Answer**: a) varname = value

The while loop in shell scripts is used to:  
a) Execute a block of code as long as a condition is true  
b) Repeat a block of code indefinitely  
c) Run code until a file is found  
d) Perform conditional tests on strings  
**Answer**: a) Execute a block of code as long as a condition is true

The command tput in shell scripting is used for:  
a) Displaying text on the screen  
b) Manipulating terminal display settings  
c) Running commands in the background  
d) Redirecting output  
**Answer**: b) Manipulating terminal display settings

### ****Linux Shell Commands and Job Control****

In Linux, which command is used to view the background jobs?  
a) bg  
b) jobs  
c) fg  
d) kill  
**Answer**: b) jobs

To kill a running process in Linux, you would use the command:  
a) terminate  
b) kill  
c) stop  
d) exit  
**Answer**: b) kill

What is the purpose of mkdir in Linux?  
a) Delete a directory  
b) Create a new directory  
c) List the directories  
d) Change directory  
**Answer**: b) Create a new directory

· Which command is used to display the contents of a file in Linux without opening an editor?  
a) cat  
b) echo  
c) more  
d) ls  
**Answer**: a) cat

· · The command mv in Linux is used for:  
a) Moving files between directories  
b) Creating a new file  
c) Displaying the contents of a file  
d) Deleting files  
**Answer**: a) Moving files between directories

· · Which of the following commands is used to copy files in Linux?  
a) cp  
b) mv  
c) rm  
d) ln  
**Answer**: a) cp

· · The find command in Linux is used to:  
a) Search for files and directories  
b) Display files with specific permissions  
c) Sort files in a directory  
d) Search for patterns within a file  
**Answer**: a) Search for files and directories

· · Which command is used to display the current working directory in Linux?  
a) pwd  
b) cd  
c) dir  
d) ls  
**Answer**: a) pwd

· · The command ln -s in Linux is used to create:  
a) A hard link  
b) A symbolic (soft) link  
c) A directory  
d) A symbolic file  
**Answer**: b) A symbolic (soft) link

· · To compress a file using the gzip command, you would use:  
a) gzip filename  
b) compress filename  
c) tar -czf filename  
d) zip filename  
**Answer**: a) gzip filename

· · Which command is used to search for a string in a file in Linux?  
a) grep  
b) find  
c) locate  
d) search  
**Answer**: a) grep

· · What does the tar command do in Linux?  
a) Compresses a directory into a file  
b) Changes file ownership  
c) Creates symbolic links  
d) Encrypts files  
**Answer**: a) Compresses a directory into a file

· · To display the first 10 lines of a file, which command would you use?  
a) tail  
b) head  
c) cat  
d) more  
**Answer**: b) head

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