1 – SYSTEM INFORMATION

Display Linux system information
uname -a

Display kernel release information
uname -r

Show which version of redhat installed
cat /etc/redhat-release

Show how long the system has been running + load
uptime

Show system host name
hostname

Display the IP addresses of the host
hostname -I

Show system reboot history
last reboot

Show the current date and time
date

Show this month's calendar
cal

Display who is online
w

Who you are logged in as
Whoami

2 – HARDWARE INFORMATION

Display messages in kernel ring buffer
dmesg

Display CPU information
cat /proc/cpuinfo

Display memory information
cat /proc/meminfo

Display free and used memory (-h for human readable, -m for MB, -g for GB.)
free -h

Display PCI devices
lspci -tv

Display USB devices
lsusb -tv

Display DMI/SMBIOS (hardware info) from the BIOS
dmidecode

Show info about disk sda
hdparm -i /dev/sda

Perform a read speed test on disk sda
hdparm -tT /dev/sda

Test for unreadable blocks on disk sda
badblocks -s /dev/sda

3 – PERFORMANCE MONITORING AND STATISTICS

Display and manage the top processes
top

Interactive process viewer (top alternative)
htop

Display processor related statistics
mpstat 1

Display virtual memory statistics
vmstat 1

Display I/O statistics
iostat 1

Display the last 100 syslog messages (Use /var/log/syslog for Debian based systems.)
tail 100 /var/log/messages

Capture and display all packets on interface eth0
tcpdump -i eth0

Monitor all traffic on port 80 (HTTP)
tcpdump -i eth0 'port 80'

List all open files on the system
lsof

List files opened by user
lsof -u user

Display free and used memory (-h for human readable, -m for MB, -g for GB.)
free –h

Execute "df -h", showing periodic updates
watch df –h

4 – USER INFORMATION AND MANAGEMENT

Display the user and group ids of your current user.
id

Display the last users who have logged onto the system.
last

Show who is logged into the system.
who

Show who is logged in and what they are doing.
w

Create a group named "test".
groupadd test

Create an account named john, with a comment of "John Smith" and create the user's home directory.
useradd -c "John Smith" -m john

Delete the john account.
userdel john

Add the john account to the sales group
usermod -aG sales john

5 – FILE AND DIRECTORY COMMANDS

List all files in a long listing (detailed) format
ls -al

Display the present working directory
pwd

Create a directory
mkdir directory

Remove (delete) file
rm file

Remove the directory and its contents recursively
rm -r directory

Force removal of file without prompting for confirmation
rm -f file

Forcefully remove directory recursively
rm -rf directory

Copy file1 to file2
cp file1 file2

Copy source_directory recursively to destination. If destination exists, copy source_directory into destination, otherwise create destination with the contents of source_directory.
cp -r source_directory destination

Rename or move file1 to file2. If file2 is an existing directory, move file1 into directory file2
mv file1 file2

Create symbolic link to linkname
ln -s /path/to/file linkname

Create an empty file or update the access and modification times of file.
touch file

View the contents of file
cat file

Browse through a text file
less file

Display the first 10 lines of file
head file

Display the last 10 lines of file
tail file

Display the last 10 lines of file and "follow" the file as it grows.
tail -f file

6 – PROCESS MANAGEMENT

Display your currently running processes
ps

Display all the currently running processes on the system.
ps -ef

Display process information for processname
ps -ef | grep processname

Display and manage the top processes
top

Interactive process viewer (top alternative)
htop

Kill process with process ID of pid
kill pid

Kill all processes named processname
killall processname

Start program in the background
program &

Display stopped or background jobs
bg

Brings the most recent background job to foreground
fg

Brings job n to the foreground
fg n

7 – FILE PERMISSIONS

PERMISSION	EXAMPLE
U G W	
rwx rwx rwx	chmod 777 filename
rwx rwx r-x	chmod 775 filename
rwx r-x r-x	chmod 755 filename
rw- rw- r--	chmod 664 filename
rw- r-- r--	chmod 644 filename

NOTE: Use 777 sparingly!

LEGEND
U = User G = Group W = World
r = Read w = write x = execute - = no access

8 – NETWORKING

Display all network interfaces and ip address
ifconfig -a

Display eth0 address and details
ifconfig eth0

Query or control network driver and hardware settings
ethtool eth0

Send ICMP echo request to host
ping host

Display whois information for domain
whois domain

Display DNS information for domain
dig domain

Reverse lookup of IP_ADDRESS
dig -x IP_ADDRESS

Display DNS ip address for domain
host domain

Display the network address of the host name.
hostname -i

Display all local ip addresses
hostname -I

Download http://domain.com/file
wget http://domain.com/file

Display listening tcp and udp ports and corresponding programs
netstat –nutlp

9 – ARCHIVES (TAR FILES)

Create tar named archive.tar containing directory.
tar cf archive.tar directory

Extract the contents from archive.tar.
tar xf archive.tar

Create a gzip compressed tar file name archive.tar.gz.
tar czf archive.tar.gz directory

Extract a gzip compressed tar file.
tar xzf archive.tar.gz

Create a tar file with bzip2 compression
tar cjf archive.tar.bz2 directory

Extract a bzip2 compressed tar file.
tar xjf archive.tar.bz2

10 – INSTALLING PACKAGES

Search for a package by keyword.
yum search keyword

Install package.
yum install package

Display description and summary information about package.
yum info package

Install package from local file named package.rpm
rpm -i package.rpm

Remove/uninstall package.
yum remove package

Install software from source code.
tar zxvf sourcecode.tar.gz
cd sourcecode
./configure
make
make install

11 – SEARCH

Search for pattern in file
grep pattern file

Search recursively for pattern in directory
grep -r pattern directory

Find files and directories by name
locate name

Find files in /home/john that start with "prefix".
find /home/john -name 'prefix*'

Find files larger than 100MB in /home
find /home -size +100M

12 – SSH LOGINS

Connect to host as your local username.
ssh host

Connect to host as user
ssh user@host

Connect to host using port
ssh -p port user@host

13 – FILE TRANSFERS

Secure copy file.txt to the /tmp folder on server
scp file.txt server:/tmp

Copy *.html files from server to the local /tmp folder.
scp server:/var/www/*.html /tmp

Copy all files and directories recursively from server to the current system's /tmp folder.
scp -r server:/var/www /tmp

Synchronize /home to /backups/home
rsync -a /home /backups/

Synchronize files/directories between the local and remote system with compression enabled
rsync -avz /home server:/backups/

14 – DISK USAGE

Show free and used space on mounted filesystems
df -h

Show free and used inodes on mounted filesystems
df -i

Display disks partitions sizes and types
fdisk -l

Display disk usage for all files and directories in human readable format
du -ah

Display total disk usage off the current directory
du –sh

15 – DIRECTORY NAVIGATION

To go up one level of the directory tree. (Change into the parent directory.)
cd ..

Go to the $HOME directory
cd

Change to the /etc directory
cd /etc