

**Section A**

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**QUESTION 1**

On a default Linux system, what file system type does the dump command act upon?

- A. Ext2
- B. UFS
- C. JFS
- D. XFS
- E. ReiserFS

Answer: A

---

**QUESTION 2**

Your machine has two working NIC's with proper addresses. You want to split your network into two new subnets. What single command will accomplish this?

- A. ifconfig
- B. route
- C. default
- D. netstat
- E. None of the choices

Answer: A

---

**QUESTION 3**

Which file system should never be backed up, and therefore never have to be restored?

- A. ufs
- B. usr
- C. tmp
- D. home
- E. swap

Answer: E

---

**QUESTION 4**

Which directory tree are you the least likely to backup or restore?

- A. /tmp
- B. /var
- C. /proc
- D. /usr
- E. /usr

Answer: C

**QUESTION 5**

What command will verify the syntax of a hosts.allow and hosts.deny file combination?

- A. tcpdchk
- B. verify --tcp
- C. ipswitch
- D. tcpdump
- E. tcpdmatch

Answer: A

---

**QUESTION 6**

How can you enable onscreen (non-printing) numbers in a vi session?

- A. :set num
- B. :se nu
- C. :set -o number
- D. :set +o num
- E. None of the choices

Answer: B

---

**QUESTION 7**

When starting vi with the file nohup.out, which of the following will enable onscreen numbers?

- A. vi +/set num nohup.out
- B. vi +"se nu" nohup.out
- C. vi /+"set number" nohup.out
- D. vi +":set num" nohup.out
- E. echo "set numb" | vi nohup.out

Answer: B

---

**QUESTION 8**

What command will set a regular users password to force changing it every 60 days? Choose all that apply.

- A. passwd -x 60 user1
- B. chage -M 60 user1
- C. passwd +x 60 user1
- D. useradd -e 60 user1
- E. usermod -f 60 user1

Answer: A, B

---

**QUESTION 9**

Which of the following commands will flush all print jobs on all configured queues of the system?

- A. lprm -a all
- B. lprm -all
- C. lprm -a \*
- D. lpflush -all

Answer: A

---

**QUESTION 10**

Your /etc/passwd file appears to have approximately 1/2 shadow passwords and 1/2 standard unix encrypted passwords. What utility would you most likely run again to fix this?

- A. pwconv
- B. passconvert
- C. useradd -conv
- D. pwhash
- E. passwd -fix

Answer: A

---

**QUESTION 11**

Your server has two fully functional NIC's with correct IP configuration. The server is not forwarding traffic between the NIC's. Which command string will set the cards to forward properly?

- A. setparam 1 > /proc/sys/net/ipv4/ip\_autoconfig
- B. echo 1 > /proc/sys/net/ipv4/ip\_forward
- C. set \$=1 /proc/sys/net/ipv4/route
- D. cat \$1 > /proc/sys/net/ethernet
- E. vi +/1 /proc/sys/net/unix/max\_dgram\_qlen

Answer: B

---

**QUESTION 12**

Which of the following are valid commands to affect your system's printing?

- A. lpq
- B. lprm
- C. lpstatus
- D. lpr
- E. lpio

Answer: A, B, D

---

**QUESTION 13**

What configuration file is used for settings and conversion parameters for the ftp daemon?

- A. ftpusers
- B. ftpconvert
- C. ftpconversions
- D. in.ftpd
- E. ftpdefaults

Answer: C

---

**QUESTION 14**

Which two commands share the same database for retrieving information?

- A. whatis
- B. whereis
- C. apropos
- D. find
- E. man

Answer: A, C

---

**QUESTION 15**

What command will show only complete word matches for a search term?

- A. whatis
- B. apropos
- C. locate
- D. find
- E. whereis

Answer: A

---

**QUESTION 16**

What command will show partial word matches for a search term?

- A. apropos
- B. locate
- C. whereis
- D. whatis
- E. find

Answer: A

---

**QUESTION 17**

What command is the functional equivalent of the command "man -k searchterm"?

- A. apropos searchterm
- B. whatis searchterm
- C. locate searchterm
- D. find / -name searchterm
- E. None of the selections

Answer: A

---

**QUESTION 18**

What command is the functional equivalent of the command "man -f searchterm"?

- A. whatis searchterm
- B. apropos searchterm
- C. locate searchterm
- D. find / -name searchterm
- E. None of the selections

Answer: A

---

**QUESTION 19**

Where can you specify options that affect the booting of the system?

- A. /etc/lilo.conf
- B. boot= prompt
- C. linux:
- D. init 3
- E. init 5

Answer: A, B

---

**QUESTION 20**

Which commands will print two copies of the file to the default printer? Choose all that apply.

- A. cat hosts | lpr -#2
- B. lpr -K2 hosts
- C. lpr -P -count 2 hosts
- D. cat hosts > lpr ; cat hosts > lpr
- E. for 1 in 2 lpr hosts

Answer: A, B

---

**QUESTION 21**

On a default install of a Linux server, regardless of the distribution version, what are the easiest methods to disable telnet, but not uninstall or remove the service? Choose two.

- A. Comment telnet out of the /etc/inetd.conf file
- B. Delete the /etc/rc.d/init.d/telnet file
- C. Rename all SXXtelnet links in the /etc/rc or /etc/rc.d directories
- D. Run "chmod 554 /etc/xinetd.d/telnet"
- E. Nothing, it's not enabled by default

Answer: A, E

---

**QUESTION 22**

Which daemon or service can be configured as a non-root user?

- A. cron
- B. ntp
- C. lpr
- D. nmbd
- E. slocate

Answer: A

---

**QUESTION 23**

Which of the following options will speed up traceroute for distant network queries?

- A. -n
- B. -p
- C. -0
- D. -t
- E. -q

Answer: A

---

**QUESTION 24**

What command could you use to confirm function of a ppp connection before establishing it?

- A. minicom
- B. hyperterminal
- C. setserial
- D. modemset
- E. None of the choices

Answer: A

---

**QUESTION 25**

What file on a system contains a list of hosts that can't connect to the machine's services?

- A. /etc/hosts/denial
- B. /etc/hosts.deny

- C. /etc/host.notallow
- D. /etc/inetd.conf
- E. /etc/hosts.not

Answer: B

---

**QUESTION 26**

Which of the following IP address ranges are considered private, according to RFC 1918? Choose all that apply.

- A. 10.0.0.0 - 10.255.255.255
- B. 192.168.0.0 - 192.168.255.255
- C. 172.16.0.0 - 172.31.255.255
- D. 191.168.16.0 - 192.168.31.255
- E. 172.16.0.0 - 172.16.255.255

Answer: A, B, C

---

**QUESTION 27**

Which protocol is used for the majority of the ping command's actions?

- A. ICMP
- B. UDP
- C. TCP
- D. NDP
- E. NCP

Answer: A

---

**QUESTION 28**

What modprobe option will cause inactive kernel modules to be unloaded?

- A. autoclean
- B. inactive
- C. remove
- D. timeout
- E. holdoff

Answer: A

---

**QUESTION 29**

Select all of the protocols that are supported by the Linux implementation of ppp.

- A. chap
- B. mschap
- C. pap

- D. spap
- E. eap

Answer: A, B, C

---

**QUESTION 30**

What command with options will cause the redirection symbol (>) to fail to overwrite the contents of an existing file?

- A. set -o noclobber
- B. set +o nooverwrite
- C. export OVERWRITE=no
- D. alias >='!>'
- E. None of the choices

Answer: A

---

**QUESTION 31**

Where can the lilo command install the boot menu and information? Choose all that apply.

- A. Master Boot Record
- B. BIOS
- C. First Sector of a Partition
- D. BootBlk
- E. Boot Prom

Answer: A, C

---

**QUESTION 32**

Which of the following is not a valid make command during a kernel recompile?

- A. make dep
- B. make clean
- C. make xconfig
- D. make modules
- E. make gzlilo

Answer: E

---

**QUESTION 33**

Which parameters should appear in a valid /etc/printcap file to allow a local printer queue to point to another machine's print queue? Choose two.

- A. rm
- B. rp
- C. remoteip



- D. netprinter
- E. netip

Answer: A, B

---

**QUESTION 34**

Which of the following commands will print the file putty on the printer hplaserj? Choose all that apply.

- A. lpr -P hplaserj -F putty
- B. lpr -Phplaserj putty
- C. lpc printer=hplaserj file=putty
- D. lpr -p hplaserj putty
- E. lpr -P hplaserj putty

Answer: B, E

---

**QUESTION 35**

Which of the following services would you be least likely to configure to be governed over by the Internet Super Server?

- A. ftp
- B. telnet
- C. ssh
- D. finger
- E. bind

Answer: C

---

**QUESTION 36**

What ppp option governs how long an interrupted connection will remain down before it attempts to reconnect?

- A. holddown
- B. holdoff
- C. inactive
- D. delay
- E. wait

Answer: B

---

**QUESTION 37**

What files affect the functioning of TCP Wrappers? Choose Two.

- A. /etc/hosts.deny
- B. /etc/nsswitch.conf

- C. /etc/security/authconfig
- D. /etc/default/clients
- E. /etc/hosts.allow

Answer: A, E

---

**QUESTION 38**

You are not using the WINS service on your network, but need to provide NETBIOS resolution to your hosts. What is the name of the daemon that provides these services on a Linux server?

- A. nmbd
- B. dns
- C. winsd
- D. lmhosts
- E. smbd

Answer: A

---

**QUESTION 39**

Select from the list below the daemons that are present on a standard Linux server to support routing. Choose all that apply.

- A. gated
- B. ripd
- C. routed
- D. ospfd
- E. bgpd

Answer: B, C, D, E

---

**QUESTION 40**

You are performing an onsite security inspection of division of your company. On an Apache server, you want to determine what files are needed and which can be removed from the /etc/httpd folder. Which of the following are possibly valid Apache configuration files? Choose all that apply.

- A. httpd.conf
- B. apached.conf
- C. srm.conf
- D. access.conf
- E. in.http.conf

Answer: A, C, D

---

**QUESTION 41**

In order to allow a Win95 host to resolve the name of and map network drives to your Linux server, what services should be running? Choose Two.

- A. nmbd
- B. smbd
- C. named
- D. routed
- E. winsd

Answer: A, B

---

**QUESTION 42**

What is the simplest method to connect a Win98 host to a Linux Server? Choose all that apply.

- A. Velcro
- B. Samba
- C. NFS
- D. DNS
- E. WINS

Answer: A, B

---

**QUESTION 43**

What files affect the name resolution functionality of a Linux host? Choose Three.

- A. /etc/resolv.conf
- B. /etc/hosts
- C. /etc/default/names
- D. /etc/nsswitch.conf
- E. /etc/inet/hosts

Answer: A, B, D

---

**QUESTION 44**

What is true about the root user and NFS?

- A. NFS shares don't allow root access by default
- B. NFS automatically masks out share permissions
- C. NFS automatically maps all root UID's to the local user "rootsquash"
- D. NFS ignores all users with a UID of 0 and a GID of 0
- E. NFS pays no attention whatsoever to security

Answer: A

---

**QUESTION 45**

Where are the default settings for the useradd command kept?

- A. /etc/default/useradd

- B. /etc/sysconfig/useradd.cfg
- C. /etc/.useradd
- D. /etc/defaults/useradd
- E. /etc/login.defs

Answer: A

---

**QUESTION 46**

What two files acting together make up the login environment for a user on a default install of Linux?

- A. /etc/profile
- B. /etc/bashrc
- C. /etc/.login
- D. ~/.bash\_profile
- E. /etc/.profile

Answer: A, D

---

**QUESTION 47**

What protocol will allow you to keep accurate time on your hosts?

- A. ntp
- B. nntp
- C. ncftp
- D. inn
- E. ntime

Answer: A

---

**QUESTION 48**

What will the following line in the /etc/exports file do?

```
/data snowblower(rw) badhost (ro)
```

- A. Give snowblower rw access to the data share, deny badhost any access, and allow ro for all other hosts
- B. Give snowblower rw access to the data share, give badhost ro access to share and deny all others
- C. Give snowblower no access to the data share, give badhost rw access and set ro access for all others
- D. Cause a syntax error

Answer: A

---

**QUESTION 49**

You've just finished editing a new entry in the /etc/exports file. Which of the following will cause the changes to take effect without interrupting current connected users or rebooting the machine?

Choose all that apply.

- A. `exportfs -a`
- B. `/etc/rc.d/init.d/nfs restart`
- C. `service nfs restart`
- D. `kill -1 HUP nfs`
- E. `init 1`

Answer: A

---

**QUESTION 50**

What system file contains definitions of well known ports, their associated services and protocols?

- A. `/etc/services`
- B. `/etc/sysconfig/network-scripts`
- C. `/etc/services.conf`
- D. `/etc/inet/hosts`
- E. None of the choices

Answer: A

---

**QUESTION 51**

What file should be edited to make the system aware of newly added library files?

- A. `/etc/modules.conf`
- B. `/etc/conf.modules`
- C. `/etc/ld.so.conf`
- D. `/etc/ld.so.cache`
- E. `/etc/LD_LIBRARY_PATH.conf`

Answer: C

---

**QUESTION 52**

What is the binary conversion of the IP address 192.168.1.10?

- A. 11000000.10101000.00000001.00001010
- B. 01101010.11000100.10101000.00000001
- C. 00000001.00001010.11000000.10101000
- D. 10101000.00000001.00001010.11000000
- E. None of the choices

Answer: A

---

**QUESTION 53**

Your investigation of a system turns up a file that contains the line below:

```
find /home -iname .rhosts -exec rm -f {} \;
```

What is the purpose of this script?

- A. To enhance system security
- B. To remove all program error dumps
- C. To remove all temporary files in the user's home directories
- D. To reset the configuration for the rsh and rexec utilities

Answer: A

---

**QUESTION 54**

What command will convert your shadow password file to md5 compatible passwords?

- A. passconv
- B. pwconv
- C. mdconv
- D. mdsum
- E. passwd --convert

Answer: B

---

**QUESTION 55**

Your machine's IP address used to function, but it's only got the localhost "lo" entry now. What three client-mode commands could you possibly use to get a new DHCP address?

- A. dhcpd
- B. ipconfig
- C. dhclient
- D. pump
- E. dhcpcd

Answer: C, D, E

---

**QUESTION 56**

Which two services resolve Netbios names to IP addresses?

- A. WINS
- B. NetbiosSVC
- C. smbd
- D. nmbd
- E. DNS

Answer: A, D

---

**QUESTION 57**

Which daemon allows Linux to share it's file systems and printers with unmodified Windows clients?

- A. X Window
- B. nmbd

- C. smbd
- D. WINS
- E. NFS

Answer: C

---

**QUESTION 58**

What configuration files on a Linux Server can be configured to share file systems with clients?  
Choose Two.

- A. /etc/nmbd
- B. /etc/smbd
- C. /etc/smb/samba.conf
- D. /etc/smb.conf
- E. /etc/samba/smb.conf

Answer: D, E

---

**QUESTION 59**

What command is used to monitor connections to the SMB server?

- A. smbclient
- B. testparm
- C. smbstatus
- D. smbstat

Answer: C

---

**QUESTION 60**

Which of the following will run a file named myscript every 23 minutes past midnight every two hours?

- A. 23 0-23/2 \* \* \* /myscript
- B. 23 \*/0-23 \* \* \* /myscript
- C. 23 @2 \* \* \* /myscript
- D. 11 2/0-23 \* \* \* /myscript

Answer: A

---

**QUESTION 61**

Which backup method resets the archive bit? Select all that apply.

- A. Full
- B. Incremental
- C. Differential
- D. Copy

E. DirTree

Answer: A, B

---

**QUESTION 62**

Which backup method will require the minimum tapes to restore?

- A. Full
- B. Incremental
- C. Differential
- D. Copy
- E. DirTree

Answer: A

---

**QUESTION 63**

What is the command to map a Windows user ID to a Linux user ID for use with the Samba Server?

- A. smbuser
- B. smbpasswd
- C. smbadduser
- D. useraddsmb
- E. useradd

Answer: C

---

**QUESTION 64**

When using the PPP daemon make a connection, what option is set to configure it to use hardware flow control?

- A. crtscts
- B. rsync
- C. nsync
- D. connect

Answer: A

---

**QUESTION 65**

When using pppd which authentication protocol is the most secure?

- A. clear text
- B. PAP
- C. CHAP
- D. LAP

Answer: C



**QUESTION 66**

Your DNS server needs to be configured for speed and security. Choose the best answer.

- A. Disable inetd, run named standalone, only allow tcp on ports 25 and 53
- B. Disable inetd, run named standalone, only allow tcp on ports 25 and 110
- C. Enable inetd, run named as an inetd service, only allow tcp on ports 25 and 53
- D. Disable inetd, run named as a standalone on the apache server.

Answer: A

---

**QUESTION 67**

Shares can be configured for export via the NFS service by editing what file?

- A. /etc/exports
- B. /etc/export
- C. /etc/exportfs
- D. /etc/nfs/exports

Answer: A

---

**QUESTION 68**

A file exists on a server, but has no content. Users cannot submit jobs to an attached printer. Choose the correct file that must be edited to fix this problem.

- A. /etc/hosts
- B. /etc/hosts.allow
- C. /etc/host.deny
- D. /etc/hosts.lpd
- E. /var/spool/hosts.lpd

Answer: D

---

**QUESTION 69**

What does "make bzImage" do as opposed to "make zImage"?

- A. makes a bz encrypted kernel
- B. makes a kernel with a better compression ratio
- C. makes a kernel with built in gzip application
- D. nothing

Answer: B

---

**QUESTION 70**

In the following output, which is representative of the host performing gateway functions?

Destination Gateway Genmask Flags Metric Ref Use Iface

```
10.3.3.0 192.168.1.1 255.255.255.255 UGH 0 0 0 eth0
192.168.1.0 * 255.255.255.0 U 0 0 0 eth0
192.168.77.0 * 255.255.255.0 U 0 0 0 vmnet1
127.0.0.0 * 255.0.0.0 U 0 0 0 lo
default 192.168.1.1 0.0.0.0 UG 0 0 0 eth0
```

- A. The default gateway is on 192.168.77.0 network
- B. The current host is the also the default gateway
- C. Its eth0 interface is incorrectly configured
- D. The 192.168.1.1 is the default gateway

Answer: B

---

**QUESTION 71**

Select the files that are associated with TCP Wrappers. Choose all that apply.

- A. /etc/hosts
- B. /etc/hosts.allow
- C. /etc/hosts.deny
- D. /etc/allow.hosts
- E. /etc/allow.deny

Answer: B, C

---

**QUESTION 72**

Which file is responsible for configuring the inet daemon?

- A. /etc/inetd.conf
- B. /etc/xinetd.conf
- C. /etc/tcpd.conf
- D. /etc/inet.conf

Answer: A

---

**QUESTION 73**

Which option in the /etc/fstab file causes all users IDs to be mapped to the system's anonymous ID when mounting a NFS mounted file system?

- A. no-root-squash
- B. all-squash
- C. all-id-squash
- D. root-squash

Answer: B

---

**QUESTION 74**

Which fstab option governs that all root ID are mapped to anonymous ID when mounting a NFS mounted file system?

- A. no-root-squash
- B. root-squash
- C. all-squash
- D. squash-root

Answer: B

---

**QUESTION 75**

What command would load the module msdos.o and all its dependancies?

- A. modinfo -a msdos
- B. lsmod -a msdos
- C. modprobe msdos
- D. insmod -d msdos

Answer: C

---

**QUESTION 76**

You have just added new modules to your system. What command would you execute to rebuild the modules.dep file?

- A. depmod --rebuild
- B. update-dependancies
- C. depmod -a
- D. insmod -dependancies

Answer: C

---

**QUESTION 77**

Which port is used for DNS

- A. 110
- B. 21
- C. 23
- D. 52
- E. 53

Answer: E

---

**QUESTION 78**

Which ports are used for FTP data and control? Choose Two.

- A. 20
- B. 23
- C. 22
- D. 21
- E. 25

Answer: A, D

---

**QUESTION 79**

What command would rebuild the ld.so.cache file

- A. ldd
- B. ldconfig
- C. ld.so.cache -rebuild
- D. ld

Answer: B

---

**QUESTION 80**

On a debian system which of the following would build a boot disk

- A. mkboot /dev/floppy
- B. makeboot --device /dev/fd0 2.4.18-12
- C. mkboot --device /dev/fd0 2.4.18-12
- D. mkboot /boot/vmlinuz-2.4.18-12
- E. mkbootdisk /boot/vmlinuz-2.4.18-12

Answer: D

---

**QUESTION 81**

What configuration file and directive will alter your apache server IP and or port that it listens to?

- A. Port
- B. IPAddress
- C. Listen
- D. MinSpareServers

Answer: C

---

**QUESTION 82**

What Apache directive must you change when using inetd to control your Apache server?

- A. ServerType
- B. ServerInetd
- C. InetServer
- D. StartServer

E. ServerMethod

Answer: A

---

**QUESTION 83**

Which Apache Directive specifies the location of the HTTP documents?

- A. RootDocument
- B. ServerRoot
- C. DocumentRoot
- D. RootServer
- E. DocPath

Answer: C

---

**QUESTION 84**

What command can be used to shut down the Apache server gracefully

- A. apacheshut
- B. apachectl
- C. apachestop
- D. apachestart

Answer: B

---

**QUESTION 85**

What is the recommended setting for StartServers in a medium sized Apache installation?

- A. 5
- B. 10
- C. 15
- D. 20

Answer: B

---

**QUESTION 86**

Your server logfile shows repeated connections to TCP port 143, What service is being accessed?

- A. smtp
- B. imap
- C. pop3
- D. pop2
- E. nmbd

Answer: B

---

**QUESTION 87**

To learn more about the management or ownership of a website, what's the best utility to use?

- A. tracert
- B. traceroute
- C. whois
- D. ping
- E. telnet

Answer: C

---

**QUESTION 88**

You have a Linux system routing 3 networks through 3 separate NICs and are having trouble with your IP forwarding. What file would you check to ensure that IP forwarding is enabled?

- A. /etc/defaultrouter
- B. /proc/net/tcp
- C. /proc/sys/net/ipv4/ip\_forward
- D. /var/log/messages

Answer: C

---

**QUESTION 89**

What command would cause a print job to be printed next regardless of its current position in the queue.

- A. lpc topq
- B. lpc -t
- C. lpq -t
- D. lpc move
- E. lpq --next

Answer: A

---

**QUESTION 90**

Which two files are responsible for allowing users to execute cron jobs?

- A. /etc/cron.allow
- B. /var/spool/cron.allow
- C. /var/spool/cron.allow
- D. /etc/cron.deny

Answer: A, D

---

**QUESTION 91**

What file must you create in your home directory in order to enable mail forwarding?

- A. .redirect
- B. .forward
- C. .plan
- D. .mail
- E. None of the choices

Answer: B

---

**QUESTION 92**

What command will tell you which groups you belong to?

Answer: groups

---

**QUESTION 93**

The correct crontab entry in the minutes column to create a command in cron that runs every two minutes would be \_\_\_\_\_.

Answer: \*/2

---

**QUESTION 94**

What is a filesystem type the dump utility can work with?

Answer: ext2

---

**QUESTION 95**

What one filesystem should you never restore (and therefore not backup): \_\_\_\_\_.

Answer: swap

---

**QUESTION 96**

You use the public NTP server time.nist.gov to make sure your system clock is accurate before using it to adjust your hardware clock.

Complete the following command to accomplish this:

\_\_\_\_\_ time.nist.gov

Answer: server

---

**QUESTION 97**

To slave your NTP daemon to an external source, you need to modify the \_\_\_\_\_ variable in your /etc/ntp.conf file.

Answer:

---

**QUESTION 98**

NTP is used to synchronize the system \_\_\_\_\_ with a central system resource.

Answer: clock

---

**QUESTION 99**

Which of the following IP networks does RFC1918 reserve for use on private intranets? (Choose two)

- A. 10.0.0.0
- B. 224.0.0.0
- C. 199.14.0.0
- D. 172.152.0.0
- E. 192.168.0.0

Answer: A, E

---

**QUESTION 100**

The \_\_\_\_\_ is used by the local host to determine which hosts are on the local subnet, and which hosts are on remote networks.

- A. DNS
- B. ARP
- C. gateway
- D. netmask
- E. routing protocol

Answer: D

---

**QUESTION 101**

Which protocol is used by ping?

- A. TCP
- B. UDP
- C. SMB
- D. ICMP
- E. OSPF

Answer: D

---

**QUESTION 102**

What is the command most often used for configuring network interfaces?

Answer: ifconfig

---

**QUESTION 103**

On a system using shadowed passwords, the correct permissions for /etc/passwd are \_\_\_\_\_ - and the correct permission for /etc/shadow are \_\_\_\_\_.



- A. -rw-r-----, -r-----
- B. -rw-r--r--, -r--r--r--
- C. -rw-r--r--, -r-----
- D. -rw-r--rw-, -r-----r--
- E. -rw-----, -r-----

Answer: C

---

**QUESTION 104**

Identify the statement that would create a default route using a gateway of 192.168.1.1

- A. netstat-add default gw
- B. route default 192.168.1.1
- C. ip route default 192.168.1.1
- D. route add default gw 192.168.1.1
- E. ifconfig default gw 192.168.1.1 eth0

Answer: D

---

**QUESTION 105**

If you suspect that a gateway machine on your network has failed but you are unsure which machine, which command will help locate the problem?

- A. ps
- B. netstat
- C. nslookup
- D. ifconfig
- E. traceroute

Answer: E

---

**QUESTION 106**

According to the PPP HOWTO which piece of software could help you test a modem?

- A. chat
- B. dhcpd
- C. minicom
- D. Hylafax
- E. netconfig

Answer: C

---

**QUESTION 107**

Suppose that the command netstat-a hangs for a long time without producing output. You might suspect:

- A. A problem with NFS
- B. A problem with DNS.
- C. A problem with NIS.
- D. A problem with routing.
- E. That the netstat daemon has crashed.

Answer: E

---

**QUESTION 108**

You build and configured a bastion host to act as a router between two internal networks. Both eth0 and eth1 can see hosts on their respective networks, but the hosts on each network cannot see any hosts on the other network. After verifying that the hosts have the correct gateway route, you decide the bastion host does not have IP forwarding turned on.

To check this cat the file `/proc/sys/net/ipv4/ _____` to ensure it has a 1.

Answer: ip\_forward

---

**QUESTION 109**

When using `/etc/ppp/peers/*` files, which of the following is true:

- A. The `/etc/ppp/options` should be empty.
- B. Any user can run `pppd` from the command line.
- C. The dial-on-demand option cannot be used.
- D. You must use chap authentication.

Answer: A

---

**QUESTION 110**

You want a secure and fast DNS server that must also be quickly accessible remotely.

You should:

- A. Reject all udp packets.
- B. Reject all icmp packets.
- C. Reject all icmp untrusted-host packets.
- D. Disable `inetd`, run `ssh` and `named` as standalone daemons.
- E. Use `tcpwrappers` to only allow connections to ports 22 and 53.

Answer: D, E

---

**QUESTION 111**

To disable telnet service on a system, which action should you take?

- A. Put NONE in `/etc/telnet.allow`
- B. Remove the appropriate telnet init script.
- C. Put a line 'ALL:ALL' in `/etc/hosts.deny`
- D. Comment the telnet entry in `/etc/inittab`

E. Comment the telnet entry in `/etc/inetd.conf`

Answer: E

---

**QUESTION 112**

In what file are the mail aliases kept for Sendmail? (Provide the complete path)

- A. `/etc/aliases`
- B. `/etc/mailaliases`
- C. `/etc/sendmail.aliases`
- D. `/etc/sendmail/aliases`
- E. `/var/spool/mail/aliases`

Answer: A

---

**QUESTION 113**

What directory by default contains the delivered mail for each user?

- A. `~/mail/`
- B. `/usr/mail/`
- C. `/var/mail/`
- D. `/var/mail/spool/`
- E. `/var/spool/mail/`

Answer: E

---

**QUESTION 114**

Of the ways listed, which is the best way to temporarily suspend a user's ability to interactively login?

- A. Changing the user's UID.
- B. Changing the user's password.
- C. Changing the user's shell to `/bin/false`.
- D. Removing the user's entry in `/etc/passwd`.
- E. Placing the command `logout` in the user's profile.

Answer: C

---

**QUESTION 115**

How many spare server processes are required by Apache for the typical, low-to-moderate volume website?

- A. 1
- B. 50
- C. 10
- D. 200

Answer: C

---

**QUESTION 116**

Which of the following files typically are used to configure Apache? (Choose two)

- A. srm.conf
- B. www.conf
- C. http.boot
- D. httpd.conf
- E. apache.conf

Answer: A, D

---

**QUESTION 117**

What file contains a list of directories for an NFS daemon to server to other systems? (Provide the complete answer)

Answer: /etc/exports

---

**QUESTION 118**

What are reverse DNS entries used for?

- A. Reverse DNS enable diagnostic commands like traceroute to work.
- B. Reverse DNS gives you information about the owner of the DNS entry.
- C. Reverse DNS provides the hostname for a particular numeric IP address.
- D. Reverse DNS provides geographical information about the DNS net location.

Answer: C

---

**QUESTION 119**

You decide to use xinetd instead of inetd.

What must be done in order to properly configure xinetd?

- A. You must create a new configuration file for xinetd.
- B. You must add xinetd to /etc/services.
- C. You must add xinetd support to your tcpwrappers configuration files.
- D. Nothing, xinetd uses the same configuration files as inetd.

Answer: D

---

**QUESTION 120**

To avoid spammers using your mail server to relay their messages, you need to \_\_\_\_\_.

- A. Disable the relay control in /etc/aliases
- B. Set up a ruleset for this in /etc/sendmail.cf

- C. Set up relay control in your DNS's MX record.
- D. Recompile sendmail with the -NORELAY flag.

Answer: B

---

**QUESTION 121**

You have a standard Apache web server installation and want to make it respond to requests on port 8088. To do this, what configuration file do you need to change?

- A. None. This is the default port.
- B. /etc/httpd/apache.conf
- C. /etc/httpd/ports.conf
- D. /etc/httpd/httpd.conf
- E. /etc/httpd/access.conf

Answer: D

---

**QUESTION 122**

This is a line from the file /etc/export:

/product Certkiller (rw)

What does it mean?

- A. Only user Certkiller may access the filesystem /product when it is NFS mounted.
- B. This computer will mount the filesystem /product on Certkiller via NFS.
- C. The filesystem /product is exported for NFS mount to computer Certkiller .
- D. All NFS access to /product will use suid Certkiller .

Answer: C

---

**QUESTION 123**

These lines are taken from /etc/smb.conf:

workgroup = group1

guest account = nobody

What else is needed for this to work?

- A. nobody must be a valid group on the server.
- B. nobody must be a user name listed in /etc/passwd.
- C. group1 must be a valid group on the server.
- D. workgroup must be a valid group on the server.

Answer: B

---

**QUESTION 124**

What file determines the DNS servers used by your computer?

- A. /etc/hosts

- B. /etc/named.conf
- C. /etc/nsswitch.conf
- D. /etc/resolv.conf

Answer: D

---

**QUESTION 125**

In what file do you change default shell variables for all users?

- A. /etc/bashrc
- B. /etc/profile
- C. ~/.bash\_profile
- D. /etc/skel/.bashrc
- E. /etc/skel/.bash\_profile

Answer: A

---

**QUESTION 126**

This is the file /etc/named.boot from the computer named tellus with IP address 128.66.12.10.

```
directory /etc
secondary Certkiller .com 128.66.12. Certkiller .com.hosts
secondary 66.128.IN-ADDR.ARPA 128.66.12.5 128.66.rev
primary 0.0.127.IN-ADDR.ARPA named.local
cache named.ca
```

From this file, you know that:

- A. tellus is the primary DNS server for domain Certkiller .com.
- B. There is a secondary DNS server for domain Certkiller .com at the IP address 128.66.12.5.
- C. tellus is a secondary DNS server for domain Certkiller .com and it downloads the domain data from the server at IP address 128.66.12.5.
- D. The server at IP address 128.66.12.5 is allowed to download domain and reverse lookup data from tellus.

Answer: B

---

**QUESTION 127**

The files /etc/hosts.allow, /etc/hosts.deny and /etc/nologin all exist on your computer, and the sshd daemon is running.

What will happen when users try to connect with ssh?

- A. Only connections from computers specified in /etc/hosts.allow will be allowed to log in.
- B. Only root will be allowed to log in.
- C. All users not specified in /etc/hosts.deny will be allowed to log in.
- D. No user will be allowed to log in.

Answer: B

**QUESTION 128**

The file `/etc/ssh_host_key` should be:

- A. world-readable
- B. readable to group `sys`
- C. readable to root only
- D. readable by all SSH users

Answer: D

---

**QUESTION 129**

You've just rebooted your server. Users complain that the server is refusing secure connections. Which of the following is most likely causing this problem?

- A. The clients are not resolving the server name properly.
- B. `sshd` is not configured to start in the default runlevel.
- C. `sshd` is using `tcpwrappers` for security.
- D. The public keys have been corrupted on the server.
- E. The users need to restart their `ssh-agent`.

Answer: B

---

**QUESTION 130**

To increase system security, it is often desirable to run daemons for system services with non-root user ids.

Which one of the following services can be run as a non-root user?

- A. `inetd`
- B. `named`
- C. `rlogind`
- D. `crond`
- E. `telnetd`

Answer: D

---

**QUESTION 131**

You want to change the aging information in the `/etc/shadow` file.

What is the best utility to use to do this?

- A. `vi`
- B. `emacs`
- C. `usermod`
- D. `modinfo`
- E. `chage`

Answer: E

---

**QUESTION 132**

You've been reviewing your security checklist and one of the items calls for reviewing the `/etc/passwd` file. You cat the file and notice that, while most users have an x in the second column, a few have a 14 character string in the second column.

What action, if any, should you take?

- A. No action. The users with an x have their accounts locked.
- B. Run `pwconv` to convert the unix passwords to shadow passwords.
- C. Use the `passwd` program to give the users with the hashed passwords new passwords.
- D. Use the `passwd` program to give the users with the x new passwords.
- E. No action. Linux knows how to handle the situation and allow user logins.

Answer: B

---

**QUESTION 133**

You've decided to convert from standard shadow passwords to MD5 passwords. You make the appropriate changes to the `/etc/pam.d/` files.

What do you do next?

- A. Nothing, the passwords will be changed as users login and out.
- B. Nothing, users will be automatically prompted to change their passwords at the next login.
- C. You need to manually change all the passwords using the `passwd` program.
- D. Delete and recreate all the users.
- E. Change the `/etc/pam.d` files back because shadow passwords and MD5 passwords are incompatible.

Answer: C

---

**QUESTION 134**

If you need to view per-user disk space usage on a filesystem, the \_\_\_\_\_ command can provide that information if the kernel is built to support it.

Answer: du

---

**QUESTION 135**

What well-known service binds port 25 and is it required on all hosts?

- A. SNMP and it should be turned off if not needed.
- B. SMTP and it is a required service.
- C. SMTP and it is only required on MX hosts.
- D. SLPD and it is required if you run LDAP services.
- E. SSHD and it is required for secure logins.



Answer: C

---

**QUESTION 136**

How many cron fields are there for specifying the time to execute a cron job?

- A. 1
- B. 3
- C. 4
- D. 5
- E. 6

Answer: D

---

**QUESTION 137**

What command will unload a kernel module?

- A. rmmod
- B. unmod
- C. delmod
- D. modprobe
- E. unloadmod

Answer: A

---

**QUESTION 138**

When preparing to compile a new kernel, which of the following commands can be used to create the configuration file?

- A. make config
- B. make kernel
- C. ./configure
- D. make kernelconfig
- E. [Kernel Source Path]/Configure

Answer: A

---

**QUESTION 139**

Which of the following could be used to load kernel modules for a 2.4.x kernel?

- A. vi/proc/modules
- B. rmmod
- C. kmod
- D. depmod

Answer: D

**QUESTION 140**

You have just recompiled a new kernel and rebooted your system with the new kernel. Unfortunately you are getting "Can't locate module" error messages.

Which of the following is most likely to be the source of the problem?

- A. You copied the modules to the wrong directory.
- B. You did not configure modular support into the kernel.
- C. You did not run depmod after installing the modules.
- D. You did not install the modules.

Answer: B

---

**QUESTION 141**

Some loadable kernel modules accept options at load time. This can be used to set interrupt or IO addresses, for example.

The place to set these options is?

- A. /etc/conf.modules
- B. /etc/lilo.conf
- C. /boot/System.map
- D. /etc/sysconfig
- E. /boot/module-info

Answer: E

---

**QUESTION 142**

Which command will display messages from the kernel that were output during the normal bootup sequence?

Answer: dmesg

---

**QUESTION 143**

You are having some trouble with a disk partition and you need to do maintenance on this partition but your users home directories are on it and several are logged in.

Which command would disconnect the users and allow you to safely execute maintenance tasks?

- A. telinit 1
- B. shutdown -r now
- C. killall -9 inetd
- D. /bin/netstop --maint
- E. /etc/rc.d/init.d/network stop

Answer: E

---

**QUESTION 144**

You need to change the default runlevel.

Which file do you need to edit? (Write the full path including the filename)

- A. /etc/init.d
- B. /etc/init-table
- C. /etc/inittab
- D. /etc/init

Answer: ./etc/inittab

---

**QUESTION 145**

Which of the following commands can be used to view kernel messages?

- A. less dmesg
- B. less /var/log/boot.log
- C. cat /proc/kernel |less
- D. cat /proc/dmesg

Answer: B

---

**QUESTION 146**

What program do you use to suspend a printer queue?

- A. lpr
- B. lpq
- C. lpc
- D. lpd
- E. lprm

Answer: C

---

**QUESTION 147**

Which crontab entry could be used to set the system time at regular intervals?

- A. 10 \* \* \* date \$d\$t\$24
- B. 10 \* \* \* settime \$d\$t\$24
- C. 10 \* \* \* date<ntp1.digex.net
- D. 10 \* \* \* /usr/sbin/runcron date <ntp1.digex.net
- E. 10 \* \* \* /usr/sbin/ntpdate ntp1.digex.net> /dev/null2>&1

Answer: E

---

**QUESTION 148**

What would the following command do?

cat hosts | lpr -#2

- A. Print the file hosts on the default printer two times.
- B. Categorize hosts and print the categorization as job #2.
- C. Output the file hosts to the line printer and assign it to the second printer queue.
- D. Print the hosts file to STDOUT and assign the current print job to printer tray number 2.

Answer: A

---

**QUESTION 149**

The hosts.lpd file provides:

- A. A list of network printer IP addresses.
- B. A listening of printers available on the local network.
- C. A listening of computers that have printer (lpd) daemons running.
- D. A listening of hosts allowed to use printers on the local machine.
- E. A list of hosts on the local network that are not allowed access to printers attached to the local machine.

Answer: D

---

**QUESTION 150**

Assume that on your system, there are man pages for both the command crontab and the configuration file for crontab.

What command would you use to access the man page for the crontab configuration file?

Answer: man crontab

---

**QUESTION 151**

You need to find all references in your system documentation to the word "copy".

Which of the following will best accomplish this task?

- A. man copy
- B. which copy
- C. locate copy
- D. apropos copy
- E. grep "copy" /usr/man/\*

Answer: D

---

**QUESTION 152**

The main collection of Linux usenet newsgroups are found in which usenet hierarchy?

- A. sys.linux
- B. comp.linux
- C. comp.os.linux
- D. comp.sys.linux

E. comp.opsys.linux

Answer: C

---

**QUESTION 153**

What Internet based organization is primarily responsible for hosting and distributing the various Linux HOWTOs? (NOT the URL)

Answer: the linux documentation project

---

**QUESTION 154**

What file is displayed BEFORE users log in for users who log in to the machine locally?

- A. /etc/issue
- B. /etc/issue.net
- C. /etc/motd
- D. /etc/local.banner

Answer: A

---

**QUESTION 155**

You want to find the man pages for utilities and tools related to PPP, but you don't know the name of the specific commands.

How can you get a list of man pages that contain information about PPP?

- A. whatis ppp
- B. man ppp
- C. apropos ppp
- D. mandb ppp

Answer: C

---

**QUESTION 156**

Which two files in a user's home directory are used to customize the bash environment?

- A. bash and .bashrc
- B. bashrc and -bash\_conf
- C. bashrc and bashprofile
- D. .bashrc and .bash\_profile
- E. bash.conf and .bash\_profile

Answer: D

---

**QUESTION 157**

What is considered the normal exit value of a process?

Answer: 0 (or Zero)

---

**QUESTION 158**

You just installed a new system, but before you create any new users you want to ensure they have a subdirectory bin/ in their home directory. To ensure this directory is automatically created each time you add a new user, in what subdirectory should you create the directory?

Answer: /etc/skel

---

**QUESTION 159**

What BASH environment variable will prevent you from overwriting a file with a ">" or ">>"?

- A. set-o safe
- B. set-o noglob
- C. set-o noclobber
- D. set-o append
- E. set-o nooverwrite

Answer: C

---

**QUESTION 160**

You added /usr/local/bin to your PATH environment variable. Next you executed the command make, which calls gcc. This failed because gcc couldn't find the executable in /usr/local/bin that it needed.

To fix this, you should execute:

\_\_\_\_\_PATH allowable

Answer: export

---

**QUESTION 161**

Which of the following files has the correct permissions?

- A. -rw--w--w- 1 root root 369 Dec 22 22:38 /etc/shadow
- B. -rwxrw-rw- 1 root root 369 Dec 22 22:38 /etc/shadow
- C. -rw-r--r-- 1 root root 369 Dec 22 22:38 /etc/shadow
- D. -rw----- 1 root root 369 Dec 22 22:38 /ect/shadow

Answer: D

---

**QUESTION 162**

You have a user whose account you want to disable but not remove.

What should you do?

- A. Edit /etc/gshadow and just remove his name.
- B. Edit /etc/passwd and change all numbers to 0.

- C. Edit /etc/shadow file and remove the last field.
- D. Edit /etc/passwd and insert an \* after the first :.
- E. Edit /etc/group file and put a # sign in front of his name.

Answer: D

---

**QUESTION 163**

What is the purpose of the bash built-in export command?

- A. To allow disks to be mounted remotely.
- B. To run a command as a process in a sub-shell.
- C. To make the command history available to sub-shells.
- D. To setup environment variables for applications.
- E. To share NFS partitions for use by other systems on the network.

Answer: D

---

**QUESTION 164**

To correct crontab entry to execute the script chklog once per hour between 3 p.m. and 5 p.m. on Monday and Thursday each week is:

- A. 0 3,4,5 \* \* 2,5 chklog
- B. 0 3,4,5 \* \* 1,4 chklog
- C. 0 15,16;17 \* \* 1,4 chklog
- D. 0 15,16,17 1,4 \* \* chklog
- E. \* 15,16,17 \* \* 1,4 chklog

Answer: D

---

**QUESTION 165**

You want to make sure all Bash users, when they login, get access to a new program in /opt/bin (not currently in their PATH). To ensure this you would put the command: PATH=\$PATH:/opt/bin; export PATH in what file?

Answer: /etc/profile

---

**QUESTION 166**

You are working in a graphical environment and trying to configure PPP, but are having problems. You know that PPP uses the local2 facility for logging. To better watch what's going on, you decide to open an Xconsole session and sent all local2 messages there.

How should you configure /etc/syslog.conf to show you all messages sent from PPP?

- A. local2.\* /dev/console
- B. local2.\* /dev/xconsole
- C. \*.local2 /dev/xconsole
- D. \*.local2 \*

Answer: A

---

**QUESTION 167**

Which of the following correctly describe the relationship between depmod and modprobe?

- A. depmod creates a dependency file for use by modprobe
- B. modprobe creates a dependency file for use by depmod
- C. they have no relationship
- D. they can replace each other

Answer: A

Explanation: Depmod creates a "Makefile"-like dependency file, based on the symbols it finds in the set of modules mentioned on the command line or from the directories specified in the configuration file. This dependency file is later used by modprobe to automatically load the correct module or stack of modules.

---

**QUESTION 168**

The normal use of depmod is to include which of the following lines in one of the files in /etc/rc.d so the correct module dependencies will be available after booting the system?

- A. /sbin/depmod -a
- B. /sbin/depmod -p
- C. /sbin/depmod -r
- D. /sbin/depmod -c

Answer: A

Explanation: As described by <http://www.oreillynet.com/linux/cmd/d/depmod.html>, depmod creates a dependency file for the modules given on the command line. This dependency file can be used by modprobe to automatically load the relevant modules. The normal use of depmod is to include the line /sbin/depmod -a in one of the files in /etc/rc.d so the correct module dependencies will be available after booting the system.

---

**QUESTION 169**

What command option of depmod allows you to print a list of all unresolved symbols?

- A. -e
- B. -l
- C. -i
- D. -a

Answer: A

Explanation: As described by <http://www.oreillynet.com/linux/cmd/d/depmod.html>



target=\_blank><http://www.oreillynet.com/linux/cmd/d/depmod.html></a>, depmod creates a dependency file for the modules given on the command line. -e: Print a list of all unresolved symbols.

---

**QUESTION 170**

Which of the following commands loads the module file into the kernel and changes any symbols that are defined on the command line?

- A. insmod
- B. depmod
- C. modprobe
- D. setmod

Answer: A

Explanation: As described by <http://www.oreillynet.com/linux/cmd/i/insmod.html> target=\_blank><http://www.oreillynet.com/linux/cmd/i/insmod.html></a>, insmod is a system administration command. Load the module file into the kernel, changing any symbols that are defined on the command line. If the module file is named file.o or file.mod, the module will be named file.

---

**QUESTION 171**

What option of the insmod command can you use to force the loading of module even if problems are encountered?

Answer: A

Explanation: As described by <http://www.oreillynet.com/linux/cmd/i/insmod.html> target=\_blank><http://www.oreillynet.com/linux/cmd/i/insmod.html></a>, insmod is a system administration command. -f: Force loading of module, even if some problems are encountered.

---

**QUESTION 172**

Which of the following commands installs a loadable module in the running kernel?

- A. insmod
- B. depmod
- C. modprobe
- D. setmod

Answer: A

Explanation: insmod installs a loadable module in the running kernel. It tries to link a module into the running kernel by resolving all symbols from the kernel's exported symbol table.

---

**QUESTION 173**

insmod tries to link a module into the running kernel by resolving all symbols obtained from:

- A. the kernel's exported symbol table.

- B. the kernel's internal pointer base.
- C. the user command argument list.
- D. None of the choices

Answer: A

Explanation: insmod installs a loadable module in the running kernel. It tries to link a module into the running kernel by resolving all symbols from the kernel's exported symbol table.

---

**QUESTION 174**

With insmod, the paths listed in /etc/modules.conf override the paths defined in MODPATH.

- A. true
- B. false

Answer: A

Explanation: If the module file name is given without directories or extension, insmod will search for the module in some common default directories. The environment variable MODPATH can be used to override this default. If a module configuration file such as /etc/modules.conf exists, it will override the paths defined in MODPATH.

---

**QUESTION 175**

Lsmmod shows information about:

- A. all loaded modules.
- B. all updatable modules.
- C. all non-updatable modules.
- D. all unloaded modules.

Answer: A

Explanation: Lsmmod shows information about all loaded modules. The format is name, size, use count, list of referring modules. The information displayed is identical to that available from /proc/modules.

---

**QUESTION 176**

Lsmmod shows information in which of the following formats?

- A. name, size, use count, list of referring modules
- B. name, use count, list of referring modules, size
- C. name, size, list of referring modules, use count
- D. None of the choices

Answer: A

Lsmmod shows information about all loaded modules. The format is name, size, use count, list of referring modules. The information displayed is identical to that available from /proc/modules.

**QUESTION 177**

The information displayed by lsmod is identical to that available from:

- A. /proc/modules.
- B. /proc/depmod.
- C. /proc/ls.
- D. /proc/lsmod.

Answer: A

Lsmod shows information about all loaded modules. The format is name, size, use count, list of referring modules. The information displayed is identical to that available from /proc/modules.

---

**QUESTION 178**

What command should you use to unload loadable modules from the running kernel?

- A. rmmod
- B. remove -mod
- C. delmod
- D. unload module

Answer: A

Rmmod unloads loadable modules from the running kernel. Rmmod tries to unload a set of modules from the kernel, with the restriction that they are not in use and that they are not referred to by other modules. If more than one module is named on the command line, the modules will be removed simultaneously. This supports unloading of stacked modules.

---

**QUESTION 179**

What command option of rmmod specifies that all outputs be sent to syslog?

- A. -a
- B. -i
- C. -s
- D. -d

Answer: C

Rmmod unloads loadable modules from the running kernel. -s: Output everything to syslog(3) instead of the terminal.

---

**QUESTION 180**

What utility examines the object file module\_file associated with a kernel module and displays any information that it can glean?

- A. modinfo
- B. modprobe
- C. insmod

D. depmod

Answer: A

The modinfo utility examines the object file module\_file associated with a kernel module and displays any information that it can glean.

---

**QUESTION 181**

What command option of modinfo can display its version number?

- A. -V
- B. -i
- C. -I
- D. -A

Answer: A

Display the version of modinfo .<p>The modinfo utility examines the object file module\_file associated with a kernel module and displays any information that it can glean. -V , --version: Display the version of modinfo .

---

**QUESTION 182**

What option of modprobe specifies the loading of all matching modules instead of stopping after the first successful loading?

- A. -a
- B. -f
- C. -c
- D. -e

Answer: A

-a, --all: Load all matching modules instead of stopping after the first successful loading.

---

**QUESTION 183**

What option of modprobe allows you to set 'autoclean' on the loaded modules?

- A. -k
- B. -d
- C. -c
- D. -e

Answer: A

-k, --autoclean: Set 'autoclean' on loaded modules. Used by the kernel when it calls on modprobe to satisfy a missing feature (supplied as a module). The -q option is implied by -k. These options will automatically be sent to insmod.

---

**QUESTION 184**

Modprobe can be used to load (choose all that apply):

- A. a single module
- B. a stack of dependent modules
- C. all modules that are marked with a specified tag
- D. None of the choices

Answer: A,B,C

Modprobe is used to load a single module, a stack of dependent modules, or all modules that are marked with a specified tag.

---

**QUESTION 185**

Modprobe will automatically load all base modules needed in the module stack as described by its dependency file. What file is this?

- A. modules.dep
- B. modprobe.dep
- C. module.dep
- D. modep.dep

Answer: A

Modprobe will automatically load all base modules needed in a module stack, as described by the dependency file modules.dep. If the loading of one of these modules fails, the whole current stack of modules loaded in the current session will be unloaded automatically.

---

**QUESTION 186**

Which of the following regarding user account configuration is true (choose all that apply):

- A. username is case-sensitive
- B. password is case-sensitive
- C. username is case-insensitive
- D. password is case-insensitive

Answer: A,B

Please note that everything should be entered in lowercase, except for the full name of the user which can be entered in a "pleasing format" (eg. Joe Smith) and the password. Case is sensitive, so inform your user(s) they must use identical case when entering their username and password.

---

**QUESTION 187**

GNU Make determines which pieces of a large program need to be recompiled and issues the commands to recompile them when necessary.

- A. true
- B. false

Answer: A

GNU Make is a program that determines which pieces of a large program need to be recompiled and issues the commands to recompile them, when necessary.

---

**QUESTION 188**

Which of the following correctly describe a Monolithic Kernel (choose all that apply):

- A. it is built into one single binary.
- B. it is loaded completely into memory at boot time.
- C. it pre-dates micro-kernel architecture by at least ten years.
- D. None of the choices

Answer: A,B,C

Have everything they need in that binary.

Are loaded completely into memory at boot time.

---

**QUESTION 189**

Which of the following correctly describe a Micro-kernel Architecture (choose all that apply):

- A. it has an extremely small core.
- B. only its small core remains in memory at all times.
- C. its device drivers are loaded as-needed.
- D. None of the choices

Answer: A,B,C

Micro-kernel Architectures:

Have an extremely small core.

Only the small core remains in memory at all times.

Device drivers and other additional items are loaded as-needed.

---

**QUESTION 190**

Rate this comment: Linux by and large is monolithic.

- A. true
- B. false

Answer: A

Is Linux Purely Monolithic?

Linux by and large is monolithic. However, Linux permits modules, a system whereby certain parts of the kernel may be loaded at runtime. Linux modules are reminiscent of micro-kernel architectures, but Linux really remains basically a monolithic architecture.

---

**QUESTION 191**

Which of the following brings up a user friendly GUI interface (choose all that apply):

- A. make xconfig
- B. make menuconfig

- C. make config
- D. make compile

Answer: A,B

The "make xconfig" or "make menuconfig" brings up a user friendly GUI interface. And "make config" brings up command-line console mode interface. You can load the configuration file from /usr/src/linux/.config (dot config file. Note the dot before config).

---

**QUESTION 192**

Which bootloader can lie to Windows and make Windows believe that it's installed on the first partition even if it's not?

- A. GRUB
- B. XLoad
- C. LILO
- D. FILO

Answer: A

GRUB differs from bootloaders such as LILO in that it can lie to Windows and make Windows believe that it's installed on the first partition even if it's not. So you can keep your current Linux system where it is and install Windows on the side.

---

**QUESTION 193**

If your new kernel does not behave normally after a routine kernel upgrade, chances are that you forgot to \_\_\_\_\_ before compiling the new kernel.

- A. make clean
- B. make shot
- C. make clear
- D. make remove

Answer: A

If your new kernel does really weird things after a routine kernel upgrade, chances are you forgot to make clean before compiling the new kernel. Symptoms can be anything from your system outright crashing, strange I/O problems, to crummy performance. Make sure you do a make dep, too.

---

**QUESTION 194**

You can find out how much memory the kernel is using by taking the total amount of memory in your machine and subtracting from it the amount of:

- A. "total mem" in /proc/meminfo
- B. "total mem" in /proc/memused
- C. "total mem" in /proc/memcurrent
- D. None of the choices

Answer: A

You can find out how much memory the kernel is using by taking the total amount of memory in your machine and subtracting from it the amount of "total mem" in /proc/meminfo or the output of the command `free`.

---

**QUESTION 195**

Which of the following insures that all of the dependencies, such as the include files, are in place?

- A. make dep
- B. make clean
- C. make\_dep
- D. make\_install

Answer: A

When the configure script ends, it also tells you to `make dep` and (possibly) `clean`. So, do the `make dep`. This insures that all of the dependencies, such the include files, are in place. It does not take long, unless your computer is fairly slow to begin with. For older versions of the kernel, when finished, you should do a `make clean`. This removes all of the object files and some other things that an old version leaves behind. In any case, do not forget this step before attempting to recompile a kernel.

---

**QUESTION 196**

Which of the following removes all of the object files and some other things that an old version leaves behind?

- A. make dep
- B. make clean
- C. make\_dep
- D. make\_install

Answer: B

When the configure script ends, it also tells you to `make dep` and (possibly) `clean`. So, do the `make dep`. This insures that all of the dependencies, such the include files, are in place. It does not take long, unless your computer is fairly slow to begin with. For older versions of the kernel, when finished, you should do a `make clean`. This removes all of the object files and some other things that an old version leaves behind. In any case, do not forget this step before attempting to recompile a kernel.

---

**QUESTION 197**

What command will compile the Linux kernel and leave a file in arch/i386/boot called bzImage?

- A. make bzImage
- B. make compile
- C. make Image
- D. make bzdisk

Answer: A

After depending and cleaning, you may now `make bzImage` or `make bzdisk` (this is the part that takes a long time.). `make bzImage` will compile the kernel, and leave a file in arch/i386/boot called `bzImage`



(among other things). This is the new compressed kernel. `make bzdisk' does the same thing, but also places the new bzImage on a floppy disk which you hopefully put in drive ``A:". `bzdisk' is fairly handy for testing new kernels; if it bombs (or just doesn't work right), just remove the floppy and boot with your old kernel. It can also be a handy way to boot if you accidentally remove your kernel (or something equally as dreadful).

---

**QUESTION 198**

What command will compile the Linux kernel and leave a file called bzImage in the floppy disk?

- A. make bzImage
- B. make compile
- C. make Image
- D. make bzdisk

Answer: D

After depending and cleaning, you may now `make bzImage' or `make bzdisk' (this is the part that takes a long time.). `make bzImage' will compile the kernel, and leave a file in arch/i386/boot called `bzImage' (among other things). This is the new compressed kernel. `make bzdisk' does the same thing, but also places the new bzImage on a floppy disk which you hopefully put in drive ``A:". `bzdisk' is fairly handy for testing new kernels; if it bombs (or just doesn't work right), just remove the floppy and boot with your old kernel. It can also be a handy way to boot if you accidentally remove your kernel (or something equally as dreadful).

---

**QUESTION 199**

Which of the following commands will attempt to configure the kernel from an old configuration file and run through the make config process for you?

- A. make oldconfig
- B. make newconfig
- C. make clean
- D. None of the choices

Answer: A

Make oldconfig' will attempt to configure the kernel from an old configuration file; it will run through the `make config' process for you. If you haven't ever compiled a kernel before or don't have an old config file, then you probably shouldn't do this, as you will most likely want to change the default configuration.

---

**QUESTION 200**

Incremental upgrades of the kernel are distributed as:

- A. patches.
- B. fixes.
- C. hotfixes.
- D. service packs.

Answer: A

Incremental upgrades of the kernel are distributed as patches. For example, if you have version 1.1.45, and you notice that there's a `patch46.gz' out there for it, it means you can upgrade to version 1.1.46 through

application of the patch. You might want to make a backup of the source tree first (``make clean'` and then ``cd /usr/src; tar zcvf old-tree.tar.gz linux'` will make a compressed tar archive for you.).

---

**QUESTION 201**

Loadable kernel modules can (choose all that apply):

- A. save memory
- B. ease configuration
- C. include filesystems
- D. include ethernet card drivers

Answer: A,B,C,D

Loadable kernel modules can save memory and ease configuration. The scope of modules has grown to include filesystems, ethernet card drivers, tape drivers, printer drivers, and more.

---

**QUESTION 202**

The command "make config" requires bash.

- A. true
- B. false

Answer: A

The command ``make config'` while in `/usr/src/linux` starts a configure script which asks you many questions. It requires bash, so verify that bash is `/bin/bash`, `/bin/sh`, or `$BASH`.

---

**QUESTION 203**

Upgrading a kernel involves which of the following tasks (choose all that apply):

- A. configuring the desired modules
- B. compiling the kernel and modules
- C. installing the kernel image
- D. conducting a system reboot

Answer: A,B,C,D

Upgrading the kernel involves configuring desired modules, compiling the kernel and modules, and finally installing the kernel image. This is followed by a system reboot (with fingers crossed!) to load the new kernel. All of this is documented in the ```README''` file which comes with each kernel package. Further information can be found in the ```Documentation/''` subdirectory. A particularly helpful file there is ```Configure.help''` which contains detailed information on the available kernel compile options and modules.

---

**QUESTION 203**

Rate this advice: In order to use the latest kernel, it is necessary to first upgrade to the newest utilities and libraries.

- A. True
- B. False

Answer: A

In order to use the latest kernel, it is first necessary to upgrade to the newest utilities and libraries.

---

**QUESTION 204**

Rate this comment: The "root" account has no security restrictions imposed upon it.

- A. True
- B. False

Answer: A

When using this account it is crucial to be as careful as possible. The "root" account has no security restrictions imposed upon it. This means it is easy to perform administrative duties without hassle. However, the system assumes you know what you are doing, and will do exactly what you request -- no questions asked. Therefore it is easy, with a mistyped command, to wipe out crucial system files.

---

**QUESTION 205**

To create a user account, keep in mind that the username is at most \_\_\_\_ characters long.

- A. 6
- B. 8
- C. 12
- D. 18

Answer: B

Please note that everything should be entered in lowercase, except for the full name of the user which can be entered in a "pleasing format" (eg. Joe Smith) and the password. Case is sensitive, so inform your user(s) they must use identical case when entering their username and password.

---

**QUESTION 216**

To exclude all log messages of a given logging facility, you should use a logging priority of:

Answer:

---

**QUESTION 217**

To prevent users from seeing who is logged in with the who command, you must remove the world readable but from the file /var/run \_\_\_\_\_.

Answer:

---

**QUESTION 218**

You want to display a list of all last logged in users. The file /var/log/wtmp exists. Which command would you use?

Answer:

---

**QUESTION 219**

What does the following command accomplish:  
"export PATH=\$PATH:\$APPLICATIONS"

- A. Changes path to the applications directory.
- B. Updates the path with the value of \$APPLICATIONS.
- C. All NFS users can mount the applications directly.
- D. Updates path with the applications directory.

Answer:

---

**QUESTION 220**

You just installed a new system, but before you create any new users you want to ensure they have a subdirectory bin/ in their home directory. To ensure this directory is automatically created each time you add a new user, in what subdirectory should you create the directory?

Answer:

---

**QUESTION 221**

You want to create a boot floppy using a given image file on your hard disk.  
What utility would you use to do so?

Answer:

---

**QUESTION 222**

A user complains that his laptop shows the wrong time when it is not connected to the network.  
What command must the superuser run to adjust the laptop's clock without entering in BIOS?

Answer:

---

**QUESTION 223**

You are working an evening shift and want to look at which jobs are pending for the at command.  
What command would you use?

Answer:

---

**QUESTION 224**

Which two of the following Class B IPv4 networks are reserved by IANA for private address assignment and private routing? (Choose two)

- A. 128.0.0.0
- B. 169.16.0.0
- C. 169.254.0.0
- D. 172.16.0.0
- E. 172.20.0.0

Answer:

---

**QUESTION 225**

Which one of the following lines would you expect to see un the file /etc/hosts.allow?

- A. in.tftpd: LOCAL
- B. tftp dgram udp wait root /usr/sbin/tcpd in tdtpd
- C. tftp 69/udp
- D. udp 17 UDP

Answer:

---

**QUESTION 226**

When you use DNS to find a hostname using a particular IP address, which kind of DNS entry is involved?

- A. Reverse DNS entrooes
- B. IP DNS entries
- C. Address DNS entries
- D. Network DNS entries

Answer:

---

**QUESTION 227**

You are running an email server configured with the default settings. In which directory will you fund the delivered mail for the user foo?

- A. /var/spool/mail
- B. /home/foo/mail
- C. /var/mail/spool
- D. /var/users/mail

Answer:

---

**QUESTION 228**

You have replaced inetd with xinetd.

What must be done after installing to ensure that your machine will work correctly?

- A. You must add a symbolic link from inetd.conf to xinetd.conf.
- B. You don't have to do anything because they are compatible.
- C. You must create a new configuration file for xinetd.
- D. You must run xinetd-configure first.

Answer:

---

**QUESTION 229**

Which configuration option can you use to prevent the root user from logging directly onto a machine using ssh?

- A. NoRootLogon
- B. PermitRootLogon No
- C. NoRootLogon Yes
- D. RootLogin = No
- E. ProhibitRootLogon No

Answer:

---

**QUESTION 230**

When an Apache server is configured to provide 10 spare server processes, which kind of website would it typically serve?

- A. A low-to-moderate volume website
- B. A website for no more than 10 users
- C. A high volume web site
- D. A one-user volume website

Answer:

---

**QUESTION 231**

You are running a machine which exports a list of directories using NFS. Provide the complete path to the file which contains this list.

Answer:

---

**QUESTION 232**

Your server was rebooted. Users have complained that the server refuses secured connections. What is the mostly likely cause?

- A. The public keys have been corrupted on the server.
- B. The clients are not resolving the server name properly.
- C. Sshd is not configured to start in the default runlevel.
- D. The users need to ssh-keygen.

Answer:

---

**QUESTION 233**

There is any entry like the following in the file /etc/ftpusers:

```
#root
```

Will root be allowed to connect via ftp to this host?

Answer:

**QUESTION 234**

The \_\_\_\_\_ command will list the currently loaded kernel modules.

Answer:

---

**QUESTION 235**

You are working on a non graphical shell.

What command would you use to configure the kernel using a menu system.

Type the command and its argument(s).

Answer:

---

**QUESTION 236**

What runlevels should never be declared as the default runlevel in /etc/inittab?

- A. 1
- B. 3
- C. 5
- D. 6

Answer:

---

**QUESTION 237**

You need to print 12 copies of the document foo.txt.

Which of the following commands would you use?

- A. cat foo.txt | lpr -#12
- B. cat foo.txt > lpr -#12
- C. cat foo.txt | lpr -12
- D. cat foo.text > lpr -12

Answer:

---

**QUESTION 238**

The directory location /usr/share/doc contains what files?

- A. All documentation created from application source code.
- B. All documentation you wish to share with other users.
- C. Supplemental information about installed packages.
- D. Programs for reading documentation.

Answer:

---

**QUESTION 239**

You wish to notify all users that you have to take down a service on which they rely.

What command will allow you to send a message to all currently logged on users?  
Enter only the command, not the path.

Answer:

---

**QUESTION 240**

You issued the command: `export CFLAGS="-march-i586"`. You can remove this environment variable by using the command:  
\_\_\_\_\_CFLAGS

Answer:

---

**QUESTION 241**

Within a script you need to create a loop. Following the `for` variable in list, the statements to be looped are found between the keywords \_\_\_\_\_ and `done`.

Answer:

---

**QUESTION 242**

Which command allows you to make a shell variable visible to subshells?

- A. `export $VARIABLE`
- B. `export VARIABLE`
- C. `set $VARIABLE`
- D. `set VARIABLE`
- E. `env variable`

Answer:

**Section B - More fill in the blank questions**

---

**QUESTION 1**

What is the name of the Kernel configuration file? Type just the filename.

Answer: `config`

---

**QUESTION 2**

What command with options and arguments will display the mail servers for `lpi.org`?

Answer: `dig lpi.org mx`

Alternative correct answer: `dig lpi.org MX`

---

**QUESTION 3**

Type the full path and name of the file whose global read bit you would change to deny normal users the ability to get useful information from the `who` and `w` commands.

Answer: `/var/run/utmp`



---

**QUESTION 4**

What file would you edit to make the current user's vi session options always take effect? Type the full path and filename.

Answer: /.exrc

---

**QUESTION 5**

You boot a freshly installed system loaded with all the defaults, xdm loads and crashes, and the system halts. How can you force the system to multi-user text mode with networking from the LILO: or boot: prompt?

Answer: linux 3

---

**QUESTION 6**

What command with options will find all files on your system that have either the SUID or GUID bits set? Type the exact command with options to accomplish this.

Answer: find / -perm +6000

---

**QUESTION 7**

What is the file that contains the settings and conversion parameters for the ftp server? Type in the name of the file only.

Answer: ftpconversions

---

**QUESTION 8**

What is the preferred documentation tool of the FSF? Type in the name of the tool only.

Answer: info

---

**QUESTION 9**

What file or utility is used by normal users to configure the cron daemon? Type in the name of the tool only.

Answer: crontab

---

**QUESTION 10**

What file with full path is used to set the location to query for hostname resolution outside of the local system?

Answer: /etc/resolv.conf

---

**QUESTION 11**

To stop immediately a DDOS attack from 10.1.1.128, what can you do? Type the command with the necessary options and arguments.

Answer: route add 10.1.1.128 lo

---

**QUESTION 12**

With a Class C address, and a subnet mask of 255.255.255.0, how many host addresses are assignable?

Answer: 254

---

**QUESTION 13**

What command will most effectively track a network path problem?

Answer: traceroute

---

**QUESTION 14**

What command will load groups of modules into the kernel as needed?

Answer: modprobe

---

**QUESTION 15**

Which local system networking file binds a hostname to an IP address? Type the full path and name of the file.

Answer: /etc/hosts

---

**QUESTION 16**

What program will determine basic connectivity to a remote host? Type just the name of the program.

Answer: ping

---

**QUESTION 17**

What file on a remote host should be configured to allow your host to print to it's already functioning printers? Type the full path and name of the file.

Answer: /etc/hosts.lpd

---

**QUESTION 18**

What file contains a list of shared directories on a Linux/Unix system? Type the full path and name of the file.

Answer: /etc/exports

---

**QUESTION 19**

To find the port used by a particular known service, you would look in what file? Type the full path and name of the file.

Answer: `/etc/services`

---

**QUESTION 20**

What command will flush all jobs on all print queues on a Linux system that uses the LPD daemon? Type the command with any options and arguments.

Answer: `lprm -a all`

---

**QUESTION 21**

Your IP address is 1.2.3.3. Which command would add a default gateway using the network 1.2.3.4?

Answer: `route add default gw 1.2.3.4`

---

**QUESTION 22**

What command would help you test if your ppp connection was functional? Type just the command name.

Answer: `minicom`

---

**QUESTION 23**

Where are command line aliases defined for a user? Type the full path and name of the file for the currently logged in user.

Answer: `/.bashrc`

---

**QUESTION 24**

What file do you configure to make changes to your smbd and nmbd daemons? Type the full path and name of the file.

Answer: `/etc/smb.conf`  
Alternative correct answer:  
`/etc/samba/smb.conf`

---

**QUESTION 25**

After modifying `/etc/exports`, what must be done to make the modifications available to users? Type the command with any options and arguments.

Answer: `exportfs -a`

---

**QUESTION 26**

To produce a compiled kernel with slightly better than standard compression, type the command with and any options and arguments to accomplish just the compilation.

Answer: `make bzImage`

---

**QUESTION 27**

What command will insert a single "!" symbol in from of the encrypted password in the system's shadow file? Type the command with any options and arguments.

Answer: usermod -L  
passwd -l

---

**QUESTION 28**

What is the exact, case-sensitive option that governs flow-control for the ppp daemon?

Answer: crtscts

---

**QUESTION 29**

What file is used to deny hosts access to a system's printers? Type the filename including full path.

Answer: /etc/hosts.lpd

---

**QUESTION 30**

What command with switches allows you to set the defaults for the useradd command? Type the command with any options and arguments.

Answer: useradd -D

---

**QUESTION 31**

What file is used in recent apache distributions to configure the service? Type the full path and name of the file.

Answer: /etc/httpd.conf  
Alternative correct answer:  
/etc/httpd/httpd.conf

---

**QUESTION 32**

What commands with any options, will cause sendmail to recognize newly added aliases while it's running?

Answer: sendmail -bi  
Alternative correct answer:  
newaliases

---

**QUESTION 33**

In what file can you configure your name server resolution queries to use the localhost first? Type the full path and name of the file.

Answer: /etc/nsswitch.conf

---

**QUESTION 34**

When you execute the "ls" command, you suspect an alias is set for the command, how can you just execute the command? Type the exact string that will accomplish this.

Answer: \ls

---

**QUESTION 35**

In what directory does undelivered remote mail get stored in? Type the full path and name of the file.

Answer: /var/spool/mqueue

---

**QUESTION 36**

Which utility is used to create or update the modules.dep file? Type the command only.

Answer: depmod

---

**QUESTION 37**

What command can you use to determine the users connected to a Linux ftp server? Type just the command to accomplish this.

Answer: ftpwho

---

**QUESTION 38**

What file is used to define a list of users that may NOT login to via the ftp daemon? Type just the name of the file.

Answer: ftpusers

---

**QUESTION 39**

To change your Ethernet interface eth0 to the IP address 10.4.4.100 with a default class C subnet mask, type the full command string to accomplish this.

Answer: ifconfig eth0 10.4.4.100 netmask 255.255.255.0

---

**QUESTION 40**

You are running a Red Hat machine. You have added a 2nd NIC to your machine and rebooted it. The card is detected in the BIOS but is not configured along with the eth0 interface upon network start. A file must be created to allow this interface to function. Type the full path and name of the file.

Answer: /etc/sysconfig/network-scripts/ifcfg-eth1

---

**QUESTION 41**

Undelivered mail for local system users is stored in what directory? Type the full path of the directory.

Answer: /var/spool/mail/username

---

**QUESTION 42**

What section of the Man pages are system administration commands in? Type the numeral of the section.

Answer: 8

---

**QUESTION 43**

What section of the Man pages are system files mentioned in? Type the numeral of the section.

Answer: 5

---

**QUESTION 44**

What command will display the active connections and Unix domain sockets for a running Linux machine with networking configured? Type just the command to accomplish this.

Answer: netstat

---

**QUESTION 45**

Converting from the inetd to xinetd services requires populating entries in what file, including the full path and name?

Answer: /etc/xinetd.conf

---

**QUESTION 46**

You have a job scheduled to run at 16:30 using the AT scheduler.

When you type atq it displays the following information

```
[root@localhost root]# atq
```

```
2 2003-03-14 16:00 a root
```

```
[root@localhost root]#
```

Type in the command to remove only this job.

Answer: atrm 2

---

**QUESTION 47**

What command will show pending jobs that will be executed once on a given date and time? Type just the command to accomplish this.

Answer: atq

---

**QUESTION 48**

The last command functionality needs what log file to be present to operate properly? Type the full path and name of the file.

Answer: /var/log/wtmp

---

**QUESTION 49**

Where should you put the .pinerc file so that all new users get it as part of their initial creation? Type the full path of the directory.

Answer: /etc/skel

---

**QUESTION 50**

What command with options will show you the contents with associated pathnames of an archive file named archive.tar.gz? The file must not be unpacked with the command string. Type the full command string to accomplish this.

Answer: tar -tzvf archive.tar.gz

Alternative correct answers:

tar tzvf archive.tar.gz

tar zxvf archive.tar.gz

---

**QUESTION 51**

On a Red Hat system, with a single floppy drive and a returned output from the uname command of 2.4.20-12, what exact command string will create a customized boot disk for this system? Type the full command string to accomplish this.

Answer: mkbootdisk --device /dev/fd0 2.4.20-12

---

**QUESTION 52**

On a Debian-based system, what command will create a boot disk on the first floppy if your kernel image is named "vmlinux-2.4.18-4"? Type the full command string to accomplish this.

Answer: mkboot vmlinux-2.4.18-4

Alternative correct answer:

mkboot /boot/vmlinux-2.4.18-4

---

**QUESTION 53**

You need to view the hardware address and IP address information for all of your configured and active interfaces. Type the simplest command string that will accomplish this.

Answer: ifconfig

---

**QUESTION 54**

What command will most effectively send a list of certain files from a directory to the tar or cpio command? Type just the command name.

Answer: ls

cat

**QUESTION 55**

On your system exists a file that is described as a map file that is used to update the MBR or first sector of the partition with the appropriate booting information. Type the full path and name of the file.

Answer: /etc/lilo.conf

---

**QUESTION 56**

In the /etc/resolv.conf file are entries that describe where DNS queries can resolve names to IP addresses. Given a DNS server with an IP address of 192.168.33.254, type the exact entry that should appear in this file.

Answer: nameserver 192.168.33.254

---

**QUESTION 57**

Your IP address is 170.35.13.28 and your network mask is 255.255.255.192. What host IP address is NOT a part of your local subnet?

- A. 170.35.13.33
- B. 170.35.13.88
- C. 170.35.13.62
- D. 170.35.13.55

Type in just the letter of the answer.

Answer: B

Alternative correct answer: b

---

**QUESTION 58**

Type in the simplest command to display the previous and current run level?

Answer: runlevel

---

**QUESTION 59**

When booting your system, you believe you saw an error message go by too quickly to see. Type in the command that will show the last system bootup messages.

Answer: dmesg

---

**QUESTION 60**

You are in run level 5 and wish to change to run level 1. Type in the simplest command to do this?

Answer: init 1

Alternative correct answers:

init s

init S



**QUESTION 61**

The dmesg command outputs information from which file, include full path?

Answer: /var/log/dmesg

---

**QUESTION 62**

Which process has a PID of 1. Type in the process name?

Answer: init

---

**QUESTION 63**

What is the name of the file and location that governs what run level is to be booted to on startup. Give full path and file name

Answer: /etc/inittab

---

**QUESTION 64**

You wish to list out in text all the daemons running and stopped on your system for all run levels. Type in the simplest command

Answer: chkconfig --list

---

**QUESTION 65**

You wish to change the daemons that start at a run level 3. Type in the command that would give a text menu based application to set the daemons for this runlevel

Answer: ntsysv --level 3

---

**QUESTION 66**

You wish to add the user king to the system including his home directory. Type in the simplest command to do this including switches

Answer: useradd -m king

---

**QUESTION 67**

You wish to remove the user stef from the system, including his home directories. Type in the simplest command to do this?

Answer: userdel -r stef

---

**QUESTION 68**

User rick has been suspended from your company and you wish to lock his account to stop anyone using it. Type in the simplest command to do this.

Answer: usermod rick -L

Alternative correct answer: passwd -l rick

---

**QUESTION 69**

User king has been exiled to the marketing department who has a group name mktg. You now wish to change the primary group for the user king to the mktg group. Type in the simplest command to do this?

Answer: usermod -g mktg king

---

**QUESTION 70**

Your user matt has forgotten his passwd and you wish to reset it. Type in the command line to change his password. You are currently logged in as root.

Answer: passwd matt

---

**QUESTION 71**

What is the full path and file name of the file that contains the configuration files for system logging? Type in full path and file name.

Answer: /etc/syslog.conf

---

**QUESTION 72**

You wish to list the contents of your crontab. Type in the simplest command to do this.

Answer: crontab -l

---

**QUESTION 73**

You wish to make changes to your crontab entry. Type in the simplest command to make this change?

Answer: crontab -e

---

**QUESTION 74**

You wish to archive and compress all the files in your home directory starting with the word projects into a file called myprojects.tar.gz. You are currently in your home directory. Type in the command that would do this?

Answer: tar -czf myprojects.tar.gz projects\*

Alternative correct answers:

tar czf myprojects.tar.gz projects\*

tar zcf myprojects.tar.gz projects\*

---

**QUESTION 75**

You have a tarball called myprojects.tar.gz and you wish to view the permissions and ownership of its contents without unpacking it. Type in the simplest command to do this.

Answer: `tar -tzvf myprojects.tar.gz`

Alternative correct answers:

`tar tvzf myprojects.tar.gz`

`tar zvtf myprojects.tar.gz`

`tar ztvf myprojects.tar.gz`

---

**QUESTION 76**

Type in the command to list your current kernel version, including any switches.

Answer: `uname -a`

Alternative correct answer: `uname -r`

---

**QUESTION 77**

You wish to install the module `fat.o` into the kernel. Type in the simplest command to do this.

Assume there are no dependencies for this module.

Answer: `insmod fat`

---

**QUESTION 78**

You wish to remove a module from the kernel called `fat`. Type in the simplest command to do this.

Assume this module has no dependencies.

Answer: `rmod fat`

---

**QUESTION 79**

Type in the simplest command to list all loaded modules?

Answer: `lsmod`

---

**QUESTION 80**

You wish to get information on a module called `msdos.o`. Type in the simplest command that would list all information including author and description for the module.

Answer: `modinfo msdos`

---

**QUESTION 81**

You have a module called `msdos.o` which has a dependency on `fat.o`. What single command will load `msdos.o` and its dependant `fat.o` module in one command line?

Answer: `modprobe msdos`

---

**QUESTION 82**

Type in the simplest command, including any switches, to rebuild the `modules.dep` file after you have made changes to the `modules.conf` file.

Answer: depmod -a

---

**QUESTION 83**

You are using X and wish to build a new kernel. What X tool would you use to build the .config file. Type in just the command, not switches.

Answer: make xconfig

---

**QUESTION 84**

You have made changes to your /etc/lilo.conf file. Type in the simplest command that will reload the configuration to the MBR.

Answer: lilo

---

**QUESTION 85**

Type in the command to compile a kernel image with normal compression.

Answer: make zImage

---

**QUESTION 86**

Type the command to check the syntax and contents of the smb.conf file.

Answer: testparm

---

**QUESTION 87**

Type in the command to monitor connections to Samba.

Answer: smbstatus

---

**QUESTION 88**

Type in the name and full path to the network configuration file that defines the search order for name resolution.

Answer: /etc/nsswitch.conf

---

**QUESTION 89**

Type in the name of the file including path of the static host name to IP address configuration file.

Answer: /etc/hosts

---

**QUESTION 90**

Type in the name and full path to the config file that contains the IP address of DNS servers for hostname resolution.

Answer: /etc/resolv.conf

**QUESTION 91**

You need to access the site for HOWTO's, Guides and mini HOWTO's. Type in the full URL as it would appear in any browser, including the protocol.

Answer: `http://www.linuxdoc.org`

Alternative correct answer: `http://www.tldp.org`

---

**QUESTION 92**

Type in the command that is equivalent to `man -k`.

Answer: `apropos`

---

**QUESTION 93**

Type in the command that is equivalent to `man -f`.

Answer: `whatis`

---

**QUESTION 94**

You wish to restart the network daemon on a Redhat Server. Type in the command and any arguments that to accomplish this without using any absolute pathnames.

Answer: `service network restart`

---

**QUESTION 95**

You wish to restart both Samba daemons. Type in the command and any arguments that to accomplish this without using any absolute pathnames.

Answer: `service smb restart`

---

**QUESTION 96**

Type in the file and full path to the configuration file for the System logging daemons.

Answer: `/etc/syslog.conf`

---

**QUESTION 97**

You have just downloaded an application called `rdesktop` from the internet. The file downloaded is named `rdesktop.tar.gz`.

Type in the simplest command to decompress and untar this file into the current directory.

Answer: `tar -xzf rdesktop.tar.gz`

Alternative correct answer: `tar xzf rdesktop.tar.gz`

---

**QUESTION 98**

Type in the full path and name of the global environment and startup program configuration file. This file typically contains the `PATH`, `umask` and `ulimit` system wide settings.

Answer: /etc/profile

---

**QUESTION 99**

A user wishes to modify his Environment variable PATH, What file should you tell him to edit in his home directory. Give filename only, no path.

Answer: .bash\_profile

---

**QUESTION 100**

Type in the name of the samba daemon that is responsible for WINS names resolution

Answer: nmbd

---

**QUESTION 101**

Type in the name of the samba daemon that is responsible for printer and file sharing?

Answer: smb

---

**QUESTION 102**

Type in the name of the file including full path that holds contains a daily message viewed by users when they log in?

Answer: /etc/motd

---

**QUESTION 103**

Type in the name of file and full path to the file that holds a message for remote users about possible system outages.

Answer: /etc/issues.net

---

**QUESTION 104**

You wish to change you network settings permanently using a text/graphical tool. Type in the command to start this tool?

Answer: netconfig

---

**QUESTION 105**

What is the command to check the syntax of your /etc/inetd.conf?

Answer: tcpdchk

---

**QUESTION 106**

What command would be used to check the gpg signature on a downloaded source file? Type just the name of the command.

Answer: gpg

---

**QUESTION 107**

What command was typed in to produce the output shown below. The entries shown are the full output of the command, less the actual command.

Type the command and the options to reproduce similar output.

```
USER PID %CPU %MEM VSZ RSS TTY STAT START TIME COMMAND
root 394 0.0 0.0 1200 444 tty1 S 01:05 0:00 /sbin/getty 38400 tty1
root 396 0.0 0.0 1200 444 tty3 S 01:05 0:00 /sbin/getty 38400 tty3
root 397 0.0 0.0 1200 444 tty4 S 01:05 0:00 /sbin/getty 38400 tty4
root 398 0.0 0.0 1200 444 tty5 S 01:05 0:00 /sbin/getty 38400 tty5
root 399 0.0 0.0 1200 444 tty6 S 01:05 0:00 /sbin/getty 38400 tty6
root 423 0.0 0.0 1200 444 tty2 S 01:06 0:00 /sbin/getty 38400 tty2
root 426 0.2 0.3 2880 1964 pts/0 S 01:07 0:00 -bash
```

Answer: ps -au

---

**QUESTION 108**

You wish to execute the ls command but it appears to be aliased. What is the easiest way of execute the original ls command without the alias?

Answer: \ls

---

**QUESTION 109**

You are using insmod. You do not want to use the default configuration file /etc/modules.conf. What environment variable should you modify:

Answer: MODULECONF

Explanation: The environment variable MODULECONF can also be used to select a different configuration file from the default /etc/modules.conf (or /etc/conf.modules (deprecated)). This environment variable will override all the definitions above.

---

**QUESTION 110**

If the module file name is given without directories or extension, insmod will search for the module in some common default directories. What environment variable can be used to override this:

Answer: MODPATH

Explanation: If the module file name is given without directories or extension, insmod will search for the module in some common default directories. The environment variable MODPATH can be used to override this default. If a module configuration file such as /etc/modules.conf exists, it will override the paths defined in MODPATH.