



Exam : 117-101

Title : General Linux, Part 1

Ver : 07.14.06

QUESTION 1:

Which file holds information about the IRQ channels in use:

Answer: /proc/interrupts

Explanation: /proc/interrupts holds IRQ channels. /proc/ioports holds I/O memory addresses. /proc/dma holds DMA channels.

QUESTION 2:

Which file holds information about the I/O addresses in use:

Answer: /proc/ioports

Explanation: /proc/interrupts holds IRQ channels. /proc/ioports holds I/O memory addresses. /proc/dma holds DMA channels.

QUESTION 3:

What is the IO Address of the second serial port

Answer: 02f8

Answer: 02F8

Answer: 02F8h

Answer: 02f8h

Answer: 2f8

Answer: 2F8

Answer: 2f8h

Answer: 2F8h

QUESTION 4:

COM2 normally uses what I/O port and IRQ combination?

A. 03F8 4

B. 02F8 3

C. 03E8 4

D. 02E8 3

Answer: B

QUESTION 5:

What is the IRQ of COM2?

Answer: 3

QUESTION 6:

To set up a connection to your ISP via your modem, what should you do (choose all that apply):

- A. configure the dialer
- B. configure the PPP settings
- C. configure the pppd daemon
- D. configure the PPTP settings

Answer: A,B,C

Explanation: As described in Debian's support document, there are actually two parts to setting up a connection to your ISP. You have to configure the dialer (the chat program), and the PPP (Point-to-Point Protocol) settings (the pppd daemon). PPP is the protocol that modems use to communicate over a serial link. (PPP is a powerful protocol that is also often used when connecting distant routers over dedicated leased lines.)

QUESTION 7:

The modem speed setting of _____ may be too high only if your computer doesn't have a 16550 UART chip.

- A. 115200
- B. 56700
- C. 38400
- D. 28800

Answer: A

Explanation: As described in Debian's support document, the speed setting of 115200 may be too high only if you have a 486 computer that doesn't have a 16550 UART chip. If you're using a 486 and not sure of the UART, play it safe and set the speed to 56700 instead. Exit the ee editor saving the file.

QUESTION 8:

You wish to configure your soundcard. Type in the name of the Red Hat text/gui application that allows

you to set/autodetect the sound card?

Answer: sndconfig

QUESTION 9:

For isapnp to successfully detect your sound card, your system must:

- A. have a kernel with the OSS sound modules ready
- B. have a sound card chip with the OSS sound modules ready
- C. have the on board sound module disabled
- D. None of the choices.

Answer: A

Explanation: Sndconfig uses isapnp to detect common soundcards and writes a isapnp configuration to and module control lines for use with your sound card. It requires a kernel with OSS sound modules to be present.

QUESTION 10:

What is used by Sndconfig to detect common soundcards (choose all that apply):

- A. isapnp
- B. pcipnp
- C. usbnp
- D. None of the choices.

Answer: A

Explanation: Sndconfig uses isapnp to detect common soundcards and writes a isapnp configuration to and module control lines for use with your sound card. It requires a kernel with OSS sound modules to be present.

QUESTION 11:

What Linux utility allows you to easily configure your Sound Blaster card on Linux?

- A. Sndconfig
- B. SoundConf
- C. Usrcnf
- D. Sysconf

Answer: A

Explanation: Sndconfig is a utility that lets you configure your soundcard easily. It was written originally for RedHat Linux, but now it is available for Debian GNU/Linux, too.

QUESTION 12:

Sndconfig was written originally for which Linux distribution?

- A. RedHat
- B. SuSE
- C. Debian
- D. Corel

Answer: A

Explanation: Sndconfig is a utility that lets you configure your soundcard easily. It was written originally for RedHat Linux, but now it is available for Debian GNU/Linux, too.

QUESTION 13:

Which of the following modems cannot be used on linux systems

- A. ISDN TA
- B. Cable modems
- C. Analogue modems
- D. PCI modems
- E. Win modems

Answer: E

QUESTION 14:

You have an old computer that you have set up to connect to the Internet with an external 56K modem but are unable to establish a connection of greater than 9600bps.

What is the most likely source of the problem?

- A. Winmodems are not supported in Linux.
- B. The UART is not capable of handling more than 9600bps.
- C. The serial port is not recognized by the kernel.
- D. The modem is not configured to use the correct IRQ.

Answer: B

QUESTION 15:

The _____ daemon is needed to establish a PPP link to another computer?

Answer: pppd

Explanation:

On Linux, PPP functionality is split into two parts: a kernel component that handles the low-level protocols (HDLC, IPCP, IPXCP, etc.) and the user space pppd daemon that handles the various higher-level protocols, such as PAP and CHAP. The current release of the PPP software for Linux contains the PPP daemon pppd and a program named chat that automates the dialing of the remote system.

QUESTION 16:

Which of the following is the ppp configuration file?

- A. /etc/ppp/peers/provider
- B. /etc/ppp/ provider
- C. /etc/peers/ppp
- D. /ppp/peers/provider

Answer: A

Explanation: As described in Debian's support document, /etc/ppp/peers/provider is the ppp configuration file. You edit it by typing in:

```
cd /etc/ppp/peers<  
ee provider
```

QUESTION 17:

Your system allows only two serial ports to be active. You want to setup an internal ISA modem. Currently the serial port 1 is used by a mouse. What should you do?

- A. disable the second serial port in the BIOS and set the modem up to take its place.
- B. enable the second serial port in the BIOS and set the modem up without a port.
- C. disable the second serial port in the BIOS and set the modem up to run as port 3.
- D. None of the choices.

Answer: A

Explanation: As described in Debian's support document, newer systems will come with either one or two serial ports which are built into the motherboard. These are typically 9-pin male connectors on the back of the PC. You can simply connect an external modem to one of these. If you add an internal modem to the system it has to be set up as the next serial port (for example number 3 in a system that has two of them built in). Or, if your system BIOS allows it, you could disable the second serial port and set the modem up to take its place.

QUESTION 18:

Which of the following modems are not supported by Linux (choose all that apply):

- A. winmodem
- B. 28.8K modem
- C. 33.6K modem
- D. 56K modem

Answer: A

Explanation: As described in Debian's support document, make sure your modem is not a "winmodem" (a stripped-down modem that's controlled through a Windows software driver). Second, if at all possible get yourself an external modem. An external non-winmodem modem presents a lot less headaches trying to set up.

Internal modems basically have three problems. They either; are winmodems, are likely going to be PCI bus modems (which present driver issues), or they have to be set up via software - software which is usually only available for Windows.

QUESTION 19:

What command should you use to find out the version of the pppd daemon you're using (fill in the blank):

Answer: pppd -v

PPP is the protocol used for establishing internet links over dial-up Modems, DSL connections, and many other types of point-to-point links. The pppd daemon works together with the kernel PPP driver to establish and maintain a PPP link with another system (called the peer) and to negotiate Internet Protocol (IP) addresses for each end of the link. Pppd can also authenticate the peer and/or supply authentication information to the peer. PPP can be used with other network protocols besides IP, but such use is becoming increasingly rare.

QUESTION 20:

What is the name of the point to point protocol daemon that is used when connecting with a modem?

Answer: pppd

Explanation:

On Linux, PPP functionality is split into two parts: a kernel component that handles the low-level protocols (HDLC, IPCP, IPXCP, etc.) and the user space pppd daemon that handles the various higher-level protocols, such as PAP and CHAP. The current release of the PPP software for Linux contains the PPP daemon pppd and a program named chat that automates the dialing of the remote system.

QUESTION 21:

What program is needed to establish a PPP link to another computer?

- A. pppd
- B. wvdial
- C. papd
- D. kppp

Answer: B

Explanation:

wvdial - PPP dialer with built-in intelligence. wvdial is an intelligent PPP dialer, which means that it dials a modem and starts PPP in order to connect to the Internet. It is something like the chat(8) program, except that it uses heuristics to guess how to dial and log into your server rather than forcing you to write a login script.

QUESTION 22:

A typical I/O address for a sound card is:

- A. IRQ 7
- B. 0x220
- C. 27210
- D. COM2
- E. 0xd800

Answer: B

QUESTION 23:

How many devices excluding the controller can be on an 8 bit SCSI card?

- A. 6
- B. 8
- C. 9
- D. 16
- E. 7

Answer: E

QUESTION 24:

How many devices can be installed on a 16 bit SCSI excluding the controller?

- A. 8

- B. 10
- C. 12
- D. 16
- E. 15

Answer: E

QUESTION 25:

You have a SCSI system with five SCSI hard disks. You add another SCSI hard disk to your system and the system no longer boots, nor is the bootloader loaded.

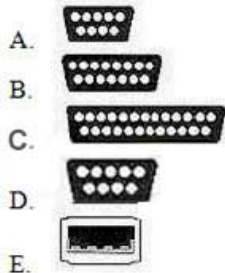
What is the most likely cause of this problem?

- A. There are too many devices on the chain.
- B. The boot disk needs a different SCSI ID.
- C. The new disk is conflicting with the SCSI adapter.
- D. The new SCSI drive is conflicting with the IDE boot drive.
- E. The new SCSI drive needs a different SCSI ID.

Answer: E

QUESTION 26:

Exhibit



Which of the following most likely represents a SCSI connector?

- A. A
- B. B
- C. C
- D. D
- E. E

Answer: C

QUESTION 27:

Which of the following opens the specified SCSI device file and retrieves its actual SCSI address parameters?

- A. Scsi_info
- B. Scsi_dev
- C. Scsiinfo
- D. Scsi_conf

Answer: A

Explanation: Scsi_info opens the specified SCSI device file, and retrieves its actual SCSI address parameters. It also looks up the device in /proc/scsi/scsi and retrieves the device's vendor information, if available. Its output is a pair of Bourne-style shell commands to define the SCSI_ID and MODEL variables based on this information. The SCSI_ID variable has three comma-separated fields: the SCSI channel number, the device ID, and the logical unit number. In most cases, the channel and logical unit will be 0.

QUESTION 28:

Scsi_info looks up the device in which file?

- A. /proc/scsi/scsi
- B. /proc/scsi/scsi_info
- C. /proc/scsi_info/scsi
- D. /scsi/scsi

Answer: A

Explanation: Scsi_info opens the specified SCSI device file, and retrieves its actual SCSI address parameters. It also looks up the device in /proc/scsi/scsi and retrieves the device's vendor information, if available. Its output is a pair of Bourne-style shell commands to define the SCSI_ID and MODEL variables based on this information. The SCSI_ID variable has three comma-separated fields: the SCSI channel number, the device ID, and the logical unit number. In most cases, the channel and logical unit will be 0.

QUESTION 29:

Which of the following commands may be used to view PCI devices seen by the Linux kernel? (Choose two)

- A. less lspci
- B. less /dev/pci
- C. less /proc/pci
- D. less /proc/devices/pci
- E. lspci | less

Answer: C, E

Explanation:

lspci is a utility for displaying information about all PCI buses in the system and all devices connected to them.

QUESTION 30:

The lspci command can display information about devices except the following:

- A. Card bus speed (e.g. 66Mhz)
- B. Card IRQ settings
- C. Card vendor identification
- D. Card AGP rate (e.g. 1x, 2x, 4x)
- E. Card Ethernet MAC address

Answer: E

Explanation:

lspci is a utility for displaying information about all PCI buses in the system and all devices connected to them. To display the MAC address of Ethernet, we use the ifconfig command.

QUESTION 31:

What is the device file and full path for the LPT1 port?

Answer: /dev/lp0

Explanation:

LPT1 port usually used to connect the printer having parallel port and the device name is /dev/lp0. If you have printer with USB port then device name will be /dev/usb/lp0.

QUESTION 32:

Which IRQ is normally dedicated to the second printer port on a PC?

- A. LPT1
- B. LPT2
- C. IRQ5
- D. IRQ11
- E. DMA 330

Answer: C

QUESTION 33:

Type in just the numeral of the IRQ most likely to conflict on a system that has both a sound card and second LPT port.

Answer: 5

QUESTION 34:

The first com port on your PC is represented by:

- A. /dev/ttyS0
- B. /dev/ttyS1
- C. /dev/ttySa
- D. /dev/ttySA

Answer: A

Explanation:

Serial devices are usually called something like /dev/ttyS1 under Linux. The utility stty will allow you to interactively view or set the sitting for a serial port; setserial will allow you to control a few extended attributes and configure IRQs and I/O addresses for non-standard ports..

QUESTION 35:

What is the full path and filename of the LPT2 port?

Answer: /dev/lp1

Explanation:

LPT1 port usually used to connect the printer having parallel port and the device name is /dev/lp0. If you have printer with USB port then device name will be /dev/usb/lp0. Convention is like, /dev/lp0 LPT1, /dev/lp1 LPT2.

QUESTION 36:

DNS provides _____ to IP address mappings.

- A. NETBIOS name
- B. host name
- C. MAC address

Answer: B

Explanation:

DNS is used to map the Hostname to IP address called forward lookup, IP to hostname called reverse lookup and allows to logically grouped the network.

QUESTION 37:

Which of the following Linux packages can be used for web caching?

- A. qmail
- B. squid
- C. apache
- D. samba

Answer: B

Explanation: proxy caching server. squid is a high-performance proxy caching server for web clients, supporting FTP, gopher, and HTTP data objects. Unlike traditional caching software, squid handles all requests in a single, non-blocking, I/O-driven process.

squid keeps meta data and especially hot objects cached in RAM, caches DNS lookups, supports non-blocking DNS lookups, and implements negative caching of failed requests. squid supports SSL, extensive access controls, and full request logging. By using the lightweight Internet Cache Protocol, squid caches can be arranged in a hierarchy or mesh for additional bandwidth savings.

Squid program belongs to squid package. To install squid package.

In redhat: rpm -ivh squid-version to install the squid.

QUESTION 38:

You just added another supported PCI Network Interface Card (NIC) to your PC, but are not able to activate it in Linux. Using tools available in Linux operating systems, you notice that the NIC is not seen by the kernel. What is most likely to be the source of the problem?

- A. The NIC is not seen within /proc/pci.
- B. Resource conflicts are not allowing NIC be initialized.
- C. You have not made the appropriate entries to /proc/interrupts and /proc/ioports
- D. You did not turn off "PnP OS" in the PC BIOS.
- E. The NIC is conflicting with the video adapter.

Answer: B

QUESTION 39:

The following are all true about the setserial command except:

- A. setserial can display the IRQ of a serial port
- B. setserial can configure the IRQ of a hardware device
- C. setserial can configure the IRQ of a software driver
- D. setserial can display the UART type of the serial device
- E. setserial can "autoconfig" serial ports

Answer: B

Explanation:

setserial - get/set Linux serial port information. setserial is a program designed to set and/or report the configuration information associated with a serial port. This information includes what I/O port and IRQ a particular serial port is using, and whether or not the break key should be interpreted as the Secure Attention Key, and so on.

During the normal bootup process, only COM ports 1-4 are initialized, using the default I/O ports and IRQ values, as listed below. In order to initialize any additional serial ports, or to change the COM 1-4 ports to a nonstandard configuration, the setserial program should be used. Typically it is called from an rc.serial script, which is usually run out of /etc/rc.local.

QUESTION 40:

What is the variable name that holds the terminal capabilities variable, which is usually set to vt100? Type the variable exactly as it would be used at the command line.

Answer: \$TERM

QUESTION 41:

Type in the device file including path for the second serial port.

Answer: /dev/ttyS1

Explanation:

Serial devices are usually called something like /dev/ttyS1 under Linux. The utility stty will allow you to interactively view or set the settings for a serial port; setserial will allow you to control a few extended attributes and configure IRQs and I/O addresses for non-standard ports..

First Serial Port: /dev/ttyS0

Second Serial Port: /dev/ttyS1

QUESTION 42:

Type in the device file and full path to first serial port.

Answer: /dev/ttyS0

Explanation

Serial devices are usually called something like /dev/ttyS1 under Linux. The utility stty will allow you to interactively view or set the settings for a serial port; setserial will allow you to control a few extended attributes and configure IRQs and I/O addresses for non-standard ports..

First Serial Port: /dev/ttyS0

Second Serial Port: /dev/ttyS1

QUESTION 43:

Type in the IO address of device /dev/ttyS3

Answer: 02e8

Answer: 02e8h

Answer: 02E8h

Answer: 02E8

Answer: 2e8

Answer: 2E8

QUESTION 44:

You have a USB storage device that you cannot get working. You have enabled all appropriate USB options in the latest 2.2 kernel but still cannot get your device working. What is the most likely cause of the problem?

- A. You have not configured your usb.usermap properly.
- B. You are using the wrong kernel for this type of device.
- C. The USB device is not USB 2.0 compliant.
- D. There is a USB resource conflict.

Answer: B

QUESTION 45:

You are running Linux 2.0.36 and you need to add a USB mouse to your system. Which of the following statements is true?

- A. You need to rebuild the kernel.
- B. You need to upgrade the kernel.
- C. You need to load the USB modules for your existing modular kernel.
- D. USB support is no available in Linux.

Answer: C

QUESTION 46:

The _____ partition is used for virtual memory.

Answer: swap

Explanation:

Swap space in Linux is used when the amount of physical memory (RAM) is full. If the system needs more memory resources and the RAM is full, inactive pages in memory are moved to the swap space.

While swap space can help machines with a small amount of RAM, it should not be considered a replacement for more RAM. Swap space is located on hard drives, which have a slower access time than physical memory.

Swap space can be a dedicated swap partition (recommended), a swap file, or a combination of swap partitions and swap files.

The size of your swap should be equal to twice your computer's physical RAM for up to 2 GB of physical RAM. For physical RAM above 2 GB, the size of your swap should be equal to the amount

of physical RAM above 2 GB. The size of your swap should never less than 32 MB.

Using this basic formula, a system with 2 GB of physical RAM would have 4 GB of swap, while one with 3 GB of physical RAM would have 5 GB of swap.

QUESTION 47:

Type in the variable name that controls the size of the command line history. (Type the variable as it would be used on the command line.)

Answer: \$HISTSIZE

Explanation:

There are two types of variable, Shell and environmental variables. Shell Variables are available on particular shell, whether environmental variables available on all shells.

HISTSIZE is a environmental Variables containing the value to store number of commands on history.

You can assign different value to variable. HISTSIZE=0

Some Variable:

HISTFILE: Specifies the files in which history command are stored on logout.

HISTFILESIZE: Specifies the number of commands of history to be saved when the shell exits.

HISTSIZE: specifies the number of history commands to keep while operating interactively.

QUESTION 48:

Type in the Variable name of the variable that stores the location of the command line history file. (Type the variable as it would be used on the command line.)

Answer: \$HISTFILE

There are two types of variable, Shell and environmental variables. Shell Variables are available on particular shell, whether environmental variables available on all shells.

HISTSIZE is a environmental Variables containing the value to store number of commands on history.

You can assign different value to variable. HISTSIZE=0

Some Variable:

HISTFILE: Specifies the files in which history command are stored on logout.

HISTFILESIZE: Specifies the number of commands of history to be saved when the shell exits.

HISTSIZE: specifies the number of history commands to keep while operating interactively.

QUESTION 49:

You are building a system administration shell script and always want a particular line to read a file named Certkiller 1.txt that exists in the home directory of every user, regardless of who the user is. What would be the full path including the filename for this file, for the current user?

Answer: ~/ Certkiller 1.txt

Answer: \$HOME/ Certkiller 1.txt

Explanation:

The ~ Symbol represent the user's home directory. As well as in linux system, there is a environmental variable HOME, representing the user's home directory.

So, we can use ~ symbol or \$HOME variable.

QUESTION 50:

Type in the file name and full path of the configuration file where you would set the variable HISTSIZE for all users of the system.

Answer: /etc/profile

/etc/profile is the global login scripts, parsed by all users with Bourne-style shells including bash and sh. Usually used to set the default path, values assign on variable, startup program execution.

Sample /etc/profile Configuration

```
# /etc/profile
# System wide environment and startup programs, for login setup
# Functions and aliases go in /etc/bashrc
pathmunge () {
if! echo $PATH /bin/egrep -q "(^|:)$1($|:)" ; then
if["$2"="after"];then
PATH=$PATH:$1
```

```
else
PATH=$1:$PATH
fi
fi
}
# Path manipulation
if[ 'id-u'=0 ]; then
pathmunge /sbin
pathmunge /usr/sbin
pathmunge /usr/local/sbin
fi
pathmunge /usr/X11R6/bin after
# No core files by default
ulimit -S -c 0 > /dev/null 2>&1
USER="`id -un`"
LOGNAME=$USER
MAIL="/var/spool/mail/$USER"
HOSTNAME=`/bin/hostname`
HISTSIZE=1000
if[ -z "$INPUTRC" -a ! -f "$HOME/.inputrc" ]; then
INPUTRC=/etc/inputrc
fi
export PATH USER LOGNAME MAIL HOSTNAME HISTSIZE INPUTRC
for i in /etc/profile.d/*.sh; do
if[ -r "$i" ]; then
. $i
fi
done
unset i
unset pathmunge
```

QUESTION 51:

Type only the name of the file or utility will show you the last system bootup messages.

Answer: dmesg

Explanation:

dmesg command helps users to print out their bootup messages.

QUESTION 52:

What does the Filesystem Hierarchy Standard enable? (Select TWO answers)

- A. Software to predict the location of installed files and directories
- B. Software to predict the ownership and access rights of installed files and directories

- C. Users to predict the location of installed files and directories.
- D. Users to predict how the filesystem should be formatted according to need.

Answer: A, C

QUESTION 53:

You have a machine which serves 100 users. You don't want to include their data in the location database. Where would you specify excluded directories for locate?

- A. /etc/locate.conf
- B. .locaterc
- C. /etc/updatedb.conf
- D. /etc/exclude_dir

Answer: D

QUESTION 54:

Identify the proper device for the third partition, on the second hard disk, on the first IDE controller on a PC system.

- A. /dev/hdb3
- B. /dev/hd1b3
- C. /dev/hdc1b3
- D. /dev/hdc1d2p3

Answer: A

Explanation:

Harddisk Recognition

Primary Master /dev/hda

Primary Slave /dev/hdb

Secondary Master /dev/hdc

Secondary Slave /dev/hdd

According To question, Device name is /dev/hdb and paratition number is 3.

/dev/hdb3

QUESTION 55:

You want to limit the amount of disk space ordinary users can have to 5 MB per user in /var/spool/mail and 10MB per user in /home, using quota. What steps do you need to take when partitioning the hard drive?

- A. Make a partition for /var/spool/mail and another one for /home.
- B. Use qfdisk instead of fdisk to create the partitions and activate quotas.

- C. No special steps are required. /var/spool/mail and /home can be a part of the / partition.
- D. Make one partition for both /home, then later on add a symlink for /var/spool/mail that points to that partition.
- E. Use fdisk to make partitions for /var/spool/mail and /home, then use the "u" option to turn on per-user quotas

Answer: A

Explanation: You must use different partitions to do that.

QUESTION 56:

You have just upgraded your PC to a 60 gigabyte IDE drive. While partitioning the drive, you notice that only 32 gigabytes are available. Which of the following will most likely allow you to use the entire drive?

- A. Create two smaller partitions of 30 gigabytes each.
- B. Set the PC BIOS to use LBA mode.
- C. Create a partition that resides entirely below the first 1024 cylinders.
- D. Use GRUB or the latest version of LILO as a bootloader.
- E. Upgrade the PC BIOS to the latest version available.

Answer: E

QUESTION 57:

On an ext2 partition, what portion is reserved for the root user?

- A. 100 cylinders
- B. No less than 500 blocks
- C. None
- D. 5%
- E. 1/32nd of the total space

Answer: D

Explanation:

Specify the percentage of the filesystem blocks reserved for the super-user. This value defaults to 5%. If you want to change the percentage for super user:
mke2fs -m percentage partition

QUESTION 58:

You have a Linux system with a 100GB ext2 partition containing large amounts of data. To minimize the boot time, you decide to convert it to a journaling filesystem. Which journaling file system would be easiest to convert the partition to (without destroying existing data)?

- A. resiserfs
- B. vfat
- C. ext3
- D. xfs

Answer: C

Explanation

What are the advantages of ext3? Why do you want to migrate from ext2 to ext3? Four main reasons: availability, data integrity, speed, and easy transition.

Availability

After an unclean system shutdown (unexpected power failure, system crash), each ext2 file system cannot be mounted until its consistency has been checked by the e2fsck program. The amount of time that the e2fsck program takes is determined primarily by the size of the file system, and for today's relatively large (many tens of gigabytes) file systems, this takes a long time. Also, the more files you have on the file system, the longer the consistency check takes. File systems that are several hundreds of gigabytes in size may take an hour or more to check. This severely limits availability.

By contrast, ext3 does not require a file system check, even after an unclean system shutdown, except for certain rare hardware failure cases (e.g. hard drive failures). This is because the data is written to disk in such a way that the file system is always consistent. The time to recover an ext3 file system after an unclean system shutdown does not depend on the size of the file system or the number of files; rather, it depends on the size of the "journal" used to maintain consistency. The default journal size takes about a second to recover (depending on the speed of the hardware).

Data Integrity

Using the ext3 file system can provide stronger guarantees about data integrity in case of an unclean system shutdown. You choose the type and level of protection that your data receives. You can choose to keep the file system consistent, but allow for damage to data on the file system in the case of unclean system shutdown; this can give a modest speed up under some but not all circumstances. Alternatively, you can choose to ensure that the data is consistent with the state of the file system; this means that you will never see garbage data in recently-written files after a crash. The safe choice, keeping the data consistent with the state of the file system, is the default.

Speed

Despite writing some data more than once, ext3 is often faster (higher throughput) than ext2 because ext3's journaling optimizes hard drive head motion. You can choose from three journaling modes to optimize speed, optionally choosing to trade off some data integrity.

1. One mode, data=writeback, limits the data integrity guarantees, allowing old data to show up in files after a crash, for a potential increase in speed under some circumstances. (This mode, which is the default journaling mode for most journaling file systems, essentially provides the more limited data integrity guarantees of the ext2 file system and merely avoids the long file system check at boot time.)

2. The second mode, data=ordered (the default mode), guarantees that the data is consistent with the system; recently-written files will never show up with garbage contents after a crash.

3. The last mode, `data=journal`, requires a larger journal for reasonable speed in most cases and therefore takes longer to recover in case of unclean shutdown, but is sometimes faster for certain database operations.

The default mode is recommended for general-purpose computing needs. To change the mode, add the `data=something` option to the mount options for that file system in the `/etc/fstab` file, as documented in the mount man page (`man mount`).

Easy Transition

It is easy to change from `ext2` to `ext3` and gain the benefits of a robust journaling file system, without reformatting. That's right, there is no need to do a long, tedious, and error-prone backup-reformat-restore operation in order to experience the advantages of `ext3`. There are two ways to perform the transition:

1. The Red Hat Linux installation program offers to transition your file systems when you upgrade your system. All you have to do is select one checkbox per file system.
2. The `tune2fs` program can add a journal to an existing `ext2` file system. If the file system is already mounted while it is being transitioned, the journal will be visible as the file `.journal` in the root directory of the file system. If the file system is not mounted, the journal will be hidden and will not appear in the file system. Just run `tune2fs -j /dev/hda1` (or whatever device holds the file system you are transitioning) and change `ext2` to `ext3` on the matching lines in `/etc/fstab`. If you are transitioning your root file system, you will have to use an `initrd` to boot. Run the `mkinitrd` program as described in the manual and make sure that your LILO or GRUB configuration loads the `initrd`. (If you fail to make that change, the system will still boot, but the root file system will be mounted as `ext2` instead of `ext3` - you can tell this by looking at the output of the command `cat /proc/mounts`.) More information on `tune2fs` can be found in the `tune2fs` man page (`man tune2fs`).

QUESTION 59:

Tamika is planning the partition table for her new workstation. Assuming she will give each of the following directories its own partition, which partition should be the largest?

- A. `/usr`
- B. `/lib`
- C. `/root`
- D. `/bin`

Answer: A

Explanation:

When we install, most of the user's commands, administrative commands and applications are installed on `/usr` by creating sub directories ie `/usr/bin`, `/usr/sbin`. So we required more space then other partitions.

QUESTION 60:

You have run out of disk space on a partition. Which of the following would be an easy way to move data

to a new partition without reconfiguring the path to the data in existing applications?

- A. Run ext2fs ACL.
- B. Use a hard link.
- C. Use a symbolic link.
- D. Use the loopback device.
- E. Create a block device offset.

Answer: C

Explanation

A Symbolic link points to another file and the contents of link file is referenced file. So, symbolic linked file occupied the very less space the original file.

QUESTION 61:

To build a fresh new Linux system, how much free space should you reserve for the Linux partition?

- A. 100 - 200MB
- B. 200 - 300MB
- C. 300 - 400MB
- D. 700 - 800MB

Answer: D

Explanation: According to the technical information available at Linux From Scratch Ver 3.0, Before we can build our new Linux system, we need to have an empty Linux partition on which we can build our new system. I recommend a partition size of at least 750 MB. This gives enough space to store all the tarballs and to compile all packages without worrying about running out of the necessary temporary disk space. But you probably want more space than that if you plan to use the LFS system as your primary Linux system.

QUESTION 62:

Which directory is used to store undelivered user email by default?

- A. /var/spool/sendmail/usermail
- B. /var/spool/mail
- C. /var/spool/mailqueue
- D. /var/spool/sendmail/username
- E. /var/mail/sendmail/username

Answer: B

Explanation

The /var/spool/mail directory contains the spooling mail. Under /var/mail/spool file with same as username are here, which contains the user's spooling mail.

QUESTION 63:

What would be the device name of the 2nd SCSI disk on your system? Include the full path to the device file

Answer: /dev/sdb

Explanation:

First SCSI disk device is filename is /dev/sda and second /dev/sdb.

QUESTION 64:

What is the device file for the first logical drive in the extended partition of the Secondary Master IDE drive? Include the full path and filename.

Answer: /dev/hdc5

Explanation

Harddisk Recognition

Primary Master /dev/hda

Primary Slave /dev/hdb

Secondary Master /dev/hdc

Secondary Slave /dev/hdd

According To question, drive is secondary master, then device name is /dev/hdc and

Logical partition start from 5.

So /dev/hdc5

QUESTION 65:

Which of the following directories would be the least likely to need backing up? Choose Two.

- A. /usr
- B. /etc
- C. /home
- D. /tmp
- E. /swap

Answer: D, E

Explanation:

Backup and Restore depends on the importance of data, the /usr, /etc, /home contains the importance data then /tmp and /swap. /usr/bin, /bin contains all user commands, /usr/sbin, /sbin contains the administrative commands, /etc/ contains the configuration files. So these directory contains the important files.

QUESTION 66:

With a Linux 2.2 Kernel-based machine configuration of 133 MHZ, 32 MB RAM and a 1 GB HD, how much swap should be configured?

- A. 512MB
- B. 256MB
- C. 128MB
- D. 64MB
- E. 32MB

Answer: D

Explanation: Swap also called the virtual memory, we should give the swap space as double of RAM size.

QUESTION 67:

Which of the following file system types causes the least impact when upgrading an Ext2 file system?

- A. Ext3
- B. ReiserFS
- C. JFS
- D. XFS
- E. VFS

Answer: A

Explanation

What are the advantages of ext3? Why do you want to migrate from ext2 to ext3? Four main reasons: availability, data integrity, speed, and easy transition.

Availability

After an unclean system shutdown (unexpected power failure, system crash), each ext2 file system cannot be mounted until its consistency has been checked by the e2fsck program. The amount of time that the e2fsck program takes is determined primarily by the size of the file system, and for today's relatively large (many tens of gigabytes) file systems, this takes a long time. Also, the more files you have on the file system, the longer the consistency check takes. File systems that are several hundreds of gigabytes in size may take an hour or more to check. This severely limits availability.

By contrast, ext3 does not require a file system check, even after an unclean system shutdown, except for certain rare hardware failure cases (e.g. hard drive failures). This is because the data is written to disk in such a way that the file system is always consistent.

The time to recover an ext3 file system after an unclean system shutdown does not depend on the size of the file system or the number of files; rather, it depends on the size of the "journal" used to maintain consistency. The default journal size takes about a second to recover (depending on the speed of the hardware).

Data Integrity

Using the ext3 file system can provide stronger guarantees about data integrity in case of an unclean system shutdown. You choose the type and level of protection that your data receives. You can choose to keep the file system consistent, but allow for damage to data on the file system in the case of unclean system shutdown; this can give a modest speed up under some but not all circumstances. Alternatively, you can choose to ensure that the data is consistent with the state of the file system; this means that you will never see garbage data in recently-written files after a crash. The safe choice, keeping the data consistent with the state of the file system, is the default.

Speed

Despite writing some data more than once, ext3 is often faster (higher throughput) than ext2 because ext3's journaling optimizes hard drive head motion. You can choose from three journaling modes to optimize speed, optionally choosing to trade off some data integrity.

1. One mode, `data=writeback`, limits the data integrity guarantees, allowing old data to show up in files after a crash, for a potential increase in speed under some circumstances. (This mode, which is the default journaling mode for most journaling file systems, essentially provides the more limited data integrity guarantees of the ext2 file system and merely avoids the long file system check at boot time.)
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QUESTION 68:

According to the Filesystem Heirarchy Standard, what directory trees are considered optional on a system's root filesystem? Choose all that apply.

- A. /mnt
- B. /root
- C. /usr
- D. /var
- E. /opt

Answer: C, D, E

Explanation:

Optional root filesystem means these filesystem can be separate from the root. Like /var, /usr, /opt, /home, /tmp etc filesystem can create in separate partaions but some filesystem can't separate from the / (root) filesystems eg, /lib, /dev/, /etc/, /sbin, /bin and /.

QUESTION 69:

When partitioning a disk with more than 1024 cylinders, which of the following could affect the systems ability to boot?

- A. Location of LILO on disk
- B. Location of /boot on disk
- C. Location /var on disk
- D. Disk transfer rate
- E. Disk seek time

Answer: B

Explanation:

If size to boot partitions assigns after the 1024 cylinder then, lilo boot loader unable to load the kernel so it effects to boot partaiton.

If you are using the LILO boot loader boot partitions should be within 1024 cylinder.

QUESTION 70:

Which of the following is a typical rule for allocating swap space for a Linux installation?

- A. Use 25% of available drive space for a swap partition.
- B. Use 10% of available drive space for a swap partition.
- C. Use 50% of total RAM for the size of a swap partition.
- D. Use 200% of total RAM for the size of a swap partition.

E. Use 128MB on each hard disk in the system for swap.

Answer: D

Explanation:

The Convention for swap partition is Double of Physical RAM size.

QUESTION 71:

You are building a server that will undergo many hardware and operating system upgrades. The server is the file server for all users on your 100 user network.

Which directory should have its own mountpoint and/or hard drive?

- A. /boot
- B. /sbin
- C. /home
- D. /etc

Answer: C

Explanation: /home is called typical user's home directory. All user's home directory will be created on /home. So, it should own mount point.

QUESTION 72:

You want to uninstall lilo. Which of the following would you do to accomplish this?

- A. lilo -u
- B. remove lilo
- C. uninstall lilo
- D. lilo -r

Answer: A

Explanation: Using lilo command we can install the lilo boot loader on MBR. To uninstall lilo bootloader from MBR use the lilo -u command.

QUESTION 73:

You want to set a 30 second delay before your system boots to the default kernel.

Which of the following command lines would do this?

- A. lilo -t 30
- B. lilo -d 30
- C. lilo delay 30
- D. lilo 30

Answer: B

-d delay

If you have specified several kernels, and press Shift at boot time, the boot loader will present you with a choice of which system to boot. After a timeout period the first kernel in the list is booted. This option specifies the timeout delay in deciseconds.

Sample Configuration of /etc/lilo.conf

```
prompt
timeout=20
default=linux
boot=/dev/hda
map=/boot/map
install=/boot/boot.b
message=/boot/message
linear
image=/boot/vmlinuz-2.6.9-5.EL
label=linux
initrd=/boot/initrd-2.6.9-5.EL.img
read-only
append="rhgb quiet root=LABEL=/"
```

QUESTION 74:

Which lilo.conf parameter will specify the amount of time the system will wait before booting to the default image?

- A. wait
- B. delay
- C. pause
- D. default

Answer: B

Explanation:

-d delay

If you have specified several kernels, and press Shift at boot time, the boot loader will present you with a choice of which system to boot. After a timeout period the first kernel in the list is booted. This option specifies the timeout delay in deciseconds.

Example: lilo -d 50

QUESTION 75:

What lilo option will list the name and location of available kernels?

- A. -q
- B. -k
- C. -v
- D. -l

Answer: A

Explanation:

-q List the currently mapped files. lilo maintains a file, by default /boot/map, containing the name and location of the kernel(s) to boot. This option will list the names therein.

Example: lilo -q

QUESTION 76:

What lilo.conf parameter is used to specify vga text mode?

- A. vga
- B. svga
- C. vga
- D. vtm

Answer: C

Explanation:

vga=mode

This specifies the VGA text mode that should be selected when booting. The following values are recognized (case is ignored):

normal: select normal 80x25 text mode.

extended (or ext): select 80x50 text mode.

ask: stop and ask for user input (at boot time).

number: use the corresponding text mode. A list of available modes can be obtained by booting with vga=ask and pressing [Enter].

QUESTION 77:

You want to set a script to run when your Linux system reboots. What lilo option should you use?

- A. -R
- B. -S
- C. -T
- D. -L

Answer: A

Explanation:

-R command line

This option sets the default command for the boot loader the next time it executes. The boot loader will then erase this line: this is a once-only command. It is typically used in reboot scripts, just before calling shutdown -ra.

QUESTION 78:

You have a system that uses LILO from the Master Boot Record. You have just recompiled a new kernel. You already have a backup kernel setup to boot from LILO so you overwrite your existing kernel with new kernel image using the same name and location. When you reboot, you find the system does not boot. What is likely to be the problem?

- A. The new kernel image is above the 1024 cylinder and therefore cannot be loaded.
- B. You did not update your /etc/lilo.conf file to boot the new kernel.
- C. You need to boot the new kernel with a boot floppy to restore the old kernel.
- D. You reboot before re-installing LILO in the Master Boot Record.

Answer: A

Explanation:

Lilo boot loader can't load the OS installed above 1024 cylinder so we can use linear option in /etc/lilo.conf file.

QUESTION 79:

Where can lilo place boot code?

- A. The boot ROM
- B. The boot RAM
- C. The /boot partition
- D. The MBR on a hard drive

Answer: D

Explanation:

lilo command installs the bootloader on MBR (Master Boot Record) and activated on next boot time.

QUESTION 80:

From the LILO: or Boot: prompt you wish to start the kernel named linux and set the machine at run level 1. Type the command line to do this?

Answer: linux 1

Answer: linux s

Answer: linux S

Answer: linux single

Explanation:

Standard Runlevel

0 - halt

1 or s or single or S- Single user mode

2 - Multiuser, without NFS (The same as 3, if you do not have networking)

3 - Full multiuser mode

4 - unused

5 - X11

6 - reboot (Do NOT set initdefault to this)

To boot the kernel parameter from lilo bootloader, press ctrl+x and then kernel name runlevel.

Example to boot linux system on runlevel 3: linux 3

QUESTION 81:

What lilo.conf parameter will cause the root file system to be mounted read only?

- A. no-write
- B. read
- C. no-right
- D. read-only

Answer: D

Explanation:

Here is the sample Configuration

prompt

timeout=20

default=linux

boot=/dev/hda

map=/boot/map

install=/boot/boot.b

message=/boot/message

linear

image=/boot/vmlinuz-2.6.9-5.EL

label=linux

initrd=/boot/initrd-2.6.9-5.EL.img

read-only àMounts the root filesystem on read only mode

append="rhgb quiet root=LABEL=/"

QUESTION 82:

What lilo.conf parameter is used to specify what device should be mounted as root by default?

- A. root
- B. drive
- C. mntroot
- D. mount

Answer: A

Explanation:

Here is the sample Configuration

prompt

timeout=20

default=linux

boot=/dev/hda

map=/boot/map

install=/boot/boot.b

message=/boot/message

linear

image=/boot/vmlinuz-2.6.9-5.EL

label=linux

initrd=/boot/initrd-2.6.9-5.EL.img

read-only

append="rhgb quiet root=LABEL=/" à Here specifying the root partation

QUESTION 83:

What run level represents basic multi-user?

- A. 2
- B. 0
- C. 1
- D. 5

Answer: A

Explanation

0 - halt (Do NOT set initdefault to this)

1 - Single user mode

2 - Multiuser, without NFS (The same as 3, if you do not have networking)

3 - Full multiuser mode

4 - unused

5 - X11

6 - reboot (Do NOT set initdefault to this)

Runlevel 2 is called the multi user without NFS (Not Networking services available).

QUESTION 84:

What command be used to find the systems previous run level?

- A. runlevel
- B. level
- C. rlevel previous
- D. show level previous

Answer: A

Explanation:

runlevel-- find the current and previous system runlevel.

Example of output

N 3 àIt means currently system running on runlevel 3 and not switched to any runlevel.

QUESTION 85:

What run level represents multi-user?

- A. 3
- B. 0
- C. 1
- D. 5

Answer: A

Explanation

0 - halt (Do NOT set initdefault to this)

1 - Single user mode

2 - Multiuser, without NFS (The same as 3, if you do not have networking)

3 - Full multiuser mode

4 - unused

5 - X11

6 - reboot (Do NOT set initdefault to this)

Runlevel 3 is called full multi user and Runelvel 5 is called X Window System

QUESTION 86:

Which of the following can be used to switch your system to run level 3?

- A. init 3
- B. rlevel 3

- C. level 3
- D. inittab 3

Answer: A

Explanation:

System boots in Default Runlevel defined in /etc/inittab file.

id:3:initdefault:

After booting the system we can switch from one runlevel to another by using the init runlevel command.

QUESTION 87:

What run level represents a system reboot?

- A. 6
- B. 1
- C. 2
- D. 5

Answer: A

Explanation:

Runlevel 6 is called reboot.

To switch runlevel 6:

init6

QUESTION 88:

What run level represents a power down?

- A. 5
- B. 0
- C. 1
- D. 4

Answer: B

Explanation:

Runlevel 0 is called Halt

To switch runlevel 0:

init0

QUESTION 89:

What run level represents administration mode?

- A. 0
- B. 1
- C. 6
- D. 5

Answer: B

Explanation: Single user mode is used for Troubleshooting and maintenance of System boot problem. So, s or S or single or 1 runlevel is called the administration mode.

QUESTION 90:

Which of the following can be used to switch your system to run level 1?

- A. init 1
- B. inittab 1
- C. rlevel 1
- D. level 1

Answer: A

Explanation:

System boots in Default Runlevel defined in /etc/inittab file.

id:3:initdefault:

After booting the system we can switch from one runlevel to another by using the init runlevel command.

QUESTION 91:

What command can be used to find the current run level?

- A. runlevel
- B. level
- C. show level
- D. rlevel

Answer: A

Explanation:

runlevel-- find the current and previous system runlevel.

Example of output

N 3 ãIt means currently system running on runlevel 3 and not switched to any runlevel.

QUESTION 92:

Linux is a(n) _____ operating system, meaning the source code is freely available.

- A. Open sourced
- B. User licensed
- C. Closed source
- D. Open binary

Answer: A

Explanation: Open source software is that software, which is freely available to download from the Internet with source code and no restriction to modify, redistribute the software. So, Linux is the Open source OS.

QUESTION 93:

You have compiled a program from source successfully, but you are getting permission errors when you try to install the binaries.

What is most likely the problem?

- A. Both rpm and dpkg need to be run as root.
- B. You have the wrong permissions set on the /usr/bin directory.
- C. The wrong prefix was used during the configuration or was not properly defined for the compile stage.
- D. The binaries need to be installed into directories that need root privileges to write to them.

Answer: D

Explanation:

when we install the binaries files, it creates the files, directories into the directory. To write the files or directories, there should be the write permission.

Before examine the Directory permission.

ls -ld directoryname

drwxr-xr-x

QUESTION 94:

Which utility would be used to verify the checksum of a downloaded archive file?

- A. verify
- B. chksum
- C. md5sum
- D. chkrpm
- E. pkgchk

Answer: C

Explanation: md5sum - compute and check MD5 message digest.

QUESTION 95:

Which steps are necessary to compile and install a source code program? Choose the least amount possible.

- A. Extract source
- B. edit makefile
- C. ./configure
- D. make
- E. make install

Answer: A, C, D, E

Explanation: Generally Source Code are in archive/compressed format, you should extract or uncompress first.

Suppose you got the file named test.tar.gz

- First uncompress using gunzip test.tar.gz
- Second Extract from archive : tar -xvf test.tar
- In the console (In Current Working Directory) type './configure' when completed check for any errors. If there are no errors you will want to type 'make'. Again check that there are no errors and then type 'make install'.

So installation Process is

- i. Extract from compress/archived files
 - ii. Use ./configure to check errors
 - iii. Use make to make executables files
 - iv. Use makeinstall to install the proper program on proper directories.
-

QUESTION 96:

Which command cannot normally be executed by a non-root user when compiling an application?

- A. make
- B. makefile
- C. ./configure
- D. make install

Answer: D

Explanation: make install command creates/writes the files or directory on different directory. To write or to create user required write permission to parent directory. Generally, normal users doesn't have write permission to system directory.

QUESTION 97:

Which of the following contains typical targets of a Makefile?

- A. Prefix, exec_prefix, bindir, mandir
- B. CFLAGS, CPPFLAGS, LIBS, LDFLAGS
- C. PATHS, DESTDIR, MANPAGES, CONFIGFILES
- D. clean, test, install, uninstall

Answer: B

QUESTION 98:

The command for most applications to install compiled source via the Makefile is:

- A. make
- B. install
- C. configure
- D. make depend
- E. make install

Answer: E

Explanation: make install command install the program on proper directory by reading the Makefile for program relationships.

QUESTION 99:

You are installing a program that is only available as source code. Which of the following commands would be best to add system specific configuration information such as the default installation directory?

- A. ./make
- B. ./install
- C. ./makefile
- D. ./configure

Answer: D

Explanation: . means current directory and .. means parent directory. ./ represents under the current directory. configure command is used to check the error, system specific configuration information.

QUESTION 100:

Which of the following is very important when installing from source code (Check TWO that apply)?

- A. Read all documentation included with the source code.
- B. Reboot after installing all programs.
- C. Manually check to see if all dependencies are met.
- D. Use rpm or dpkg go verify the installation.
- E. Do not install binaries as the root user.

Answer: A, C

Explanation: Before start to installation, carefully reads all documentation of the specific source code, then check where dependencies are there ? dependencies are already installed or with there identify and install.

QUESTION 101:

The command for most applications to install compiled source via the Makefile is _____.

- A. Makefile install
- B. Make install
- C. ./install
- D. install makefile

Answer: B

Explanation: make install command install the program on proper directory by reading the Makefile for program relationships.

QUESTION 102:

Which of the following switches can be used with the tar command to find out the difference between two tar files?

- A. -c
- B. -v
- C. -d
- D. -t

Answer: C

Explanation:

To find differences between archive and file system we can use -d or --diff or -compare option.

Syntax: tar [option] archivefile1 archivefile2

QUESTION 103:

What operation of the make utility cannot normally be performed as a normal user?

- A. mrproper
- B. clean
- C. dep
- D. depends
- E. install

Answer: E

Explanation: make install or install command creates/writes the files or directory on different directory. To write or to create user required write permission to parent directory. Generally, normal users doesn't have write permission to system directory.

QUESTION 104:

Type the simplest command with switches to unpack a compressed archive named file1.tar.gz?

Answer: tar -zxf file1.tar.gz

Answer: tar zxf file1.tar.gz

Answer: tar xzf file1.tar.gz

Answer: tar -xzf file1.tar.gz

Explanation:

Generally files will archive using tar command. To archive tar cvf tarfilename.tar source files

To extract from the tar archive file: tar xvf tarfilename.tar

In questions showing the file archived as well as compressed using gzip command.

We can archive as well as compress at one time using:

tar -czfv tarfilename.cgz

or

first create the archive file and then compress using gzip or gzip2 command.

To extract :

tar -zxf filename

or

uncompress the file : gunzip compressedfile

extract from the tar. tar xvf tarfile.

QUESTION 105:

You want to add files to a previously created tar file. You want to replace existing files with newer files, how can you do this?

- A. Use the append command
- B. Use the tar command with the -t switch
- C. Use the add command
- D. Use the tar command with the -u switch

Answer: D

Explanation:

To append the newer or updated files only on existing tar file either use the -u or --update option on tar command

Example: tar -u tarfilename.tar sourcefile

QUESTION 106:

You want to add information to a previously created tar file. How would you do this?

- A. Use the tar command with the -a switch
- B. Use the append command
- C. Use the add command
- D. Use the tar command with the -r switch

Answer: D

Explanation:

To append the new file at the end of existing tar file use either -r or --append option.

Example:

tar-r tarfilename.tar newfilename

QUESTION 107:

You want to find out what files are contained in a tar file. How would you do this?

- A. Use the tar command with the -t switch
- B. Use the tar command with the -r switch
- C. Use the grep command
- D. Use the find command

Answer: A

Explanation: To test the tar files by displaying the contents of tar file use the -t or --list option on tar command.

Example: tar -t tarfilename.tar

QUESTION 108:

Which of the following commands can be used to extract a tar file?

- A. tar -vf
- B. tar -xvf
- C. tar -e
- D. tar -v

Answer: B

Explanation: To extract the files from tar file: either -x or --extract or --get option.

Example: tar -xvf tarfile

Some Common Options:

- càCreate a tar file
- tàTest a tar file
- xàExtract a tar file
- vàVerbose
- fàTar Filename

QUESTION 109:

Which of the following commands can be used to create a tar archive file in verbose mode?

- A. tar -v
- B. tar -cvf
- C. tar -c
- D. tar -vf

Answer: B

Explanation: To create a tar file with verbose mode

tar-cvf tarfilename sourcefiles

Some Common Options:

- càCreate a tar file
- tàTest a tar file
- xàExtract a tar file
- vàVerbose
- fàTar Filename

QUESTION 110:

Type in the command line to upgrade a package using the apt-get command. The package name is package1.

Answer: apt-get upgrade package1

Explanation:

Updating Information on Available Packages

To update information on available packages, issue the following command:

apt-get update
Installing a Package
To install a specified package, issue the following command:

apt-get install package
where package specifies the name of the package to be installed.

Upgrading Installed Packages
To automatically upgrade all installed packages to the latest available version, issue the following command:

apt-get upgrade package

QUESTION 111:

Type in the command to update the apt-get database with new or updated packages.

Answer: apt-get update

Explanation

Updating Information on Available Packages
To update information on available packages, issue the following command:

apt-get update
Installing a Package
To install a specified package, issue the following command:

apt-get install package
where package specifies the name of the package to be installed.

Upgrading Installed Packages
To automatically upgrade all installed packages to the latest available version, issue the following command:

apt-get upgrade package

QUESTION 112:

What is the location including the full path to where apt-get stores its downloaded packages?

Answer: /var/cache/apt/archives

Explanation: apt-get command stores the downloaded packages on /var/cache/atp/archives

QUESTION 113:

Which system administration command you can use to update ld.so.cache after the installation of new shared libraries?

- A. ldconfig
- B. ldd
- C. libpath
- D. newlibs

Answer: A

Explanation

Ldconfig creates the necessary links and cache to the most recent shared libraries found in the directories specified on the command line, in the file /etc/ld.so.conf, and in the trusted directories (/lib and /usr/lib). The cache is used by the run-time linker, ld.so or ld-linux.so. Ldconfig checks the header and file names of the libraries it encounters when determining which versions should have their links updated.

QUESTION 114:

Which utility can you call to find out what shared libraries a program is using?

- A. ldd
- B. ld.so
- C. modprobe
- D. ldconfig
- E. ld-linux.so

Answer: A

Explanation: ldd command prints the shared libraries required by each program or shared library specified on the command line.

Example: ldd libdb.so.3

libc.so.6 => /lib/tls/libc.so.6 (0x00237000)

/lib/ld-linux.so.2 (0x0021e000)

QUESTION 115:

What is the full path including the filename of the configuration file that stores the locations of all library files on the system?

Answer: /etc/ld.so.conf

Explanation

Ldconfig creates the necessary links and cache to the most recent shared libraries found in the directories specified on the command line, in the file /etc/ld.so.conf, and in the trusted directories (/lib and /usr/lib). The cache is used by the run-time linker, ld.so or ld-linux.so. Ldconfig checks the header and file names of the libraries it encounters when determining which versions should have their links updated.

Some files:

/lib/ld.so run-time linker/loader

/etc/ld.so.conf File containing a list of colon, space, tab, newline, or comma separated directories in which to search for libraries.

/etc/ld.so.cache File containing an ordered list of libraries found in the directories specified in /etc/ld.so.conf.

QUESTION 116:

On boot, your system shows messages that mention library file errors. What command should you type (command only) to attempt to fix the library errors?

Answer: ldconfig

Explanation: ldconfig command is used to configure dynamic linker run time bindings

QUESTION 117:

What command will display the needed libraries for the program myprog1 to run?

Answer: ldd myprog1

Explanation: ldd command prints the shared libraries required by each program or shared library specified on the command line.

Example: ldd myprog1

QUESTION 118:

What file is read by the program ldconfig?

- A. /lib/ld.so
- B. /etc/ld.so.conf
- C. /etc/ld.so.cache
- D. /etc/modules.conf

Answer: B

Explanation

ldconfig creates the necessary links and cache to the most recent shared libraries found in the directories specified on the command line, in the file /etc/ld.so.conf, and in the trusted directories (/lib and /usr/lib). The cache is used by the run-time linker, ld.so or ld-linux.so. ldconfig checks the header and file names of the libraries it encounters when determining which versions should have their links updated.

Some files:

/lib/ld.so run-time linker/loader

/etc/ld.so.conf File containing a list of colon, space, tab, newline, or comma separated directories in which to search for libraries.

/etc/ld.so.cache File containing an ordered list of libraries found in the directories specified in /etc/ld.so.conf.

QUESTION 119:

What environment variable will set the path for added libraries?

- A. LD_LIBRARY_PATH
- B. LIBPATH
- C. LPATH
- D. LIB
- E. None of the above

Answer: A

Explanation: the LD_LIBRARY_PATH environmental variable set the path for added libraries. You can display environmental variable using env command.

QUESTION 120:

You are preparing a new set of shared libraries in /usr/local/applib and you have written and compiled some code that uses these libraries. You have already performed ldconfig, however the system still cannot find the shared libraries.

What is most likely the cause of this?

- A. You used the wrong compiler.
- B. You did not update your PATH variable.
- C. You compiled the code with wrong library.
- D. You forgot to put the library path in ld.so.conf

Answer: D

Explanation:

/etc/ld.so.conf File containing a list of colon, space, tab, newline, or comma separated directories in which to search for libraries. So you should specify the path the libraries in /etc/ld.so.conf file.

QUESTION 121:

What is filename including full path, of the file used to configure library path settings for a system?

- A. /usr/lib/lib.so.1
- B. /etc/lib.conf
- C. /etc/ld.so.conf
- D. /usr/lib/modules/modules.conf
- E. None of the above

Answer: C

Explanation:

/etc/ld.so.conf File containing a list of colon, space, tab, newline, or comma separated directories in which to search for libraries. So you should specify the full path the libraries in /etc/ld.so.conf file.

QUESTION 122:

What happens when ldconfig is executed?

- A. The binary index file (cache) of library locations is rebuilt
- B. The text index file of library locations is rebuilt
- C. make is run to rebuild the libraries whose source code has changed
- D. The disk is scanned for libraries to include in the index
- E. Nothing, unless the libraries have been recompiled since ldconfig was last run.

Answer: A

Explanation:

ldconfig creates the necessary links and cache to the most recent shared libraries found in the directories specified on the command line, in the file /etc/ld.so.conf, and in the trusted directories (/lib and /usr/lib). The cache is used by the run-time linker, ld.so or ld-linux.so. ldconfig checks the header and file names of the libraries it encounters when determining which versions should have their links updated.

QUESTION 123:

You wish to install a debian package using dpkg called debianpackage.deb. Give the simplest command line to do this.

Answer: dpkg -i debianpackage.deb

Answer: dpkg --install debianpackage.deb

Explanation:

There are two different options -i or -install. Convention is short option starts from - and long option starts from -- .

If you have a package file containing a package you want to install, the simplest way to install the package is to use the dpkg command:

dpkg --install packagefile

where packagefile stands for the name of the package file, which generally ends with the characters .deb. If all the prerequisite packages have already been installed and if the package does not conflict with any installed packages, the command will unpack the package files, move them to their proper locations, and execute the scripts necessary to configure the package.

QUESTION 124:

You have a package called debianpkg.deb and wish to convert it to an rpm. Type the command line that will do this for you including switches.

Answer: `alien -r debianpkg.deb`

Answer: `alien --to-rpm debianpkg.deb`

Explanation: Debian Linux generally .deb format packages and Redhat uses .rpm format packages. There is a command named alien used to convert .deb to rpm. To convert the debian package to rpm (redhat package).
`alien-r` or `-to-rpm` debianpackage.

QUESTION 125:

Type the command line including switches to convert and install a Redhat package named package.rpm on a Debian system?

Answer: `alien -i package.rpm`

Answer: `alien --install package.rpm`

Explanation: Redhat packages are in .rpm format and debian packages are in .deb format. To convert or to install the .rpm packages on debian linux:
`alien -i` or `--install` package.rpm

QUESTION 126:

What is the correct syntax to remove Certkiller entirely from a Debian System including configuration files?

- A. `dpkg -r Certkiller`
- B. `dpkg --remove Certkiller`
- C. `dpkg --kill Certkiller`
- D. `dpkg -R Certkiller`
- E. `dpkg --purge Certkiller`

Answer: E

Explanation:
To remove an installed package, use the command
`dpkg --remove package` à this command does not remove package configuration files, which may facilitate subsequent re-installation of the package. If you want to remove the configuration files as well, use the command:
`dpkg --purge package`

QUESTION 127:

What are the default permissions on the Debian /etc/passwd file?

- A. 644
- B. 640
- C. 777
- D. 700
- E. 400

Answer: A

Explanation: The default permission of /etc/passwd file is:

-rw-r--r--

In Here read and write to owner user, read only to group member and others.

Numerical value of Read 4

Numerical value of Write 2

Numerical value of Execute 1

So default permission is 644

QUESTION 128:

What are the default permissions on the Debian /etc/shadow file?

- A. 654
- B. 640
- C. 400
- D. 644
- E. 540

Answer: C

Explanation: The default permission of /etc/shadow file is:

-r-----

In Here read only to owner user and no permission to others.

Numerical value of Read 4

Numerical value of Write 2

Numerical value of Execute 1

So default permission is 400

QUESTION 129:

How do you use dpkg to verify the status of an installed package Certkiller pkg? Select two.

- A) dpkg -s Certkiller pkg
- B) dpkg -S Certkiller pkg
- C) dpkg -stat Certkiller pkg
- D) dpkg --stat Certkiller pkg
- E) dpkg --status Certkiller pkg

Answer: A, E

Explanation:

To verify the install packages on debian linux either -s or --status options is used.

Some common options:

<code>dpkg -i package.deb</code>	<u>installs</u> the specified package.
<code>dpkg --purge package</code>	<u>removes</u> the specified package along with its config files.
<code>dpkg -r package</code>	<u>removes</u> the specified package, but not its config files.
<code>dpkg-reconfigure package</code>	<u>reconfigures</u> the installed package.
<code>dpkg -C</code>	<u>checks</u> the system for any partially installed packages.
<code>dpkg -c package.deb</code>	<u>lists</u> the contents of the uninstalled package.
<code>dpkg -I package.deb</code>	<u>Shows</u> information about the uninstalled package.
<code>dpkg -l package-name-pattern</code>	<u>lists</u> installed packages matching the pattern.
<code>dpkg -s package</code>	<u>Shows</u> the status of the specified package.
<code>dpkg -L package</code>	<u>lists</u> the files installed on your machine from package.
<code>dpkg -S filename-search-pattern</code>	<u>searches</u> all installed packages for the owner of the specified file. Ex: <code>dpkg -S /bin/bash</code> would return the package bash .
<code>dpkg -p package</code>	<u>displays</u> the info about the installed package. Similar to -I

QUESTION 130:

Which pair of dpkg options are equivalent and what do they do?

- A. -C and --configure they reconfigure an unpackaged package
- B. -C and --clear-avail they erase existing information about what packages are available
- C. -A and --audit they update information about what packages are available
- D. -C and --audit they provide resource consumption information on installed packages
- E. -C and --audit they search for partially installed packages

Answer: E

Explanation: To check the partially installed packages: package -C or --audit packagename

<code>dpkg -i package.deb</code>	<u>installs</u> the specified package.
<code>dpkg --purge package</code>	<u>removes</u> the specified package along with its config files.
<code>dpkg -r package</code>	<u>removes</u> the specified package, but not its config files.
<code>dpkg-reconfigure package</code>	<u>reconfigures</u> the installed package.
<code>dpkg -C</code>	<u>checks</u> the system for any partially installed packages.
<code>dpkg -c package.deb</code>	<u>lists</u> the contents of the uninstalled package.
<code>dpkg -I package.deb</code>	<u>Shows</u> information about the uninstalled package.
<code>dpkg -l package-name-pattern</code>	<u>lists</u> installed packages matching the pattern.
<code>dpkg -s package</code>	<u>Shows</u> the status of the specified package.
<code>dpkg -L package</code>	<u>lists</u> the files installed on your machine from package.
<code>dpkg -S filename-search-pattern</code>	<u>searches</u> all installed packages for the owner of the specified file. Ex: <code>dpkg -S /bin/bash</code> would return the package bash .
<code>dpkg -p package</code>	<u>displays</u> the info about the installed package. Similar to -I

QUESTION 131:

You wish to install a package named package.deb using the apt-get tool. Type the simplest command line to do this.

Answer: apt-get install package.deb

Explanation: To install the package using apt-get command

<code>apt-get install package</code>	installs the specified package and any dependancies
--------------------------------------	---

QUESTION 132:

What is the name and full path to the location of the dpkg database?

Answer: /var/lib/dpkg

Explanation: Local database is maintain in debian as well as in redhat. /var/lib/dpkg is the local package database for debian linux and /var/lib/rpm for redhat.

QUESTION 133:

The _____ command is typically used to search files for a specified string.

Answer: grep

Explanation: grep command prints lines of files where pattern is matched.
Eg: grep root /etc/passwd à will display all lines from /etc/paswd matching the root pattern.

QUESTION 134:

You need to remove the package Certkiller regardless of dependencies, type the command with switches that will do this?

Answer: rpm -e Certkiller --nodeps

Answer: rpm -e --nodeps Certkiller

Explanation: To remove the package we can use the -e or --erase option. To remove or install or upgrade the package without checking the dependencies -nodeps option is used.

So,

rpm -e --nodeps Certkiller
rpm -erase nodeps Certkiller

QUESTION 135:

What RPM command would show you detailed information for a package called openssh-3.6.i386.rpm?

- A. rpm --showinformation openssh-3.6.i386.rpm
- B. rpm -- showdetails openssh-3.6.i386.rpm
- C. rpm -qi openssh-3.6.i386.rpm
- D. rpm -- verify openssh-3.6.i386.rpm

Answer: C

Explanation: -qi option queried and display the information about the package.

QUESTION 136:

After a minor security incident you are instructed by your lead sys-admin to verify the RPM's installed on running system. Which command will create a complete report which you can analyze for changes which may be security related?

- A. `.rpm-Va>report`
- B. `rpm-Qavy > report`
- C. `rpm-Vqt-- nomd5>report`
- D. `rpm-checkfiles >report`
- E. `rpm-Va-nofiles > report`

Answer: A

Explanation:

Verifying a package compares information about the installed files in the package with information about the files taken from the package metadata stored in the rpm database. Among other things, verifying compares the size, MD5 sum, permissions, type, owner and group of each file. Any discrepancies are displayed.

To verify the package:

`rpm-Va` or `-verify -a packagename`

QUESTION 137:

You need to know where all the configuration files for the installed package named "postfix" are located. Assuming it was installed with rpm, which command will list this information for you?

- A. `rpm -qc postfix`
- B. `rpm -Vc postfix`
- C. `rpm --config postfix`
- D. `rpm -listconfig postfix`
- E. `rpm -qa --config postfix`

Answer: A

Explanation: To list the configuration files of installed package: `rpm -qc` or `-q --configfiles packagename`

To list all belongs to installed package: `rpm -ql` or `-q --list packagename`

QUESTION 138:

You want to examine the changelog for the installed package "postfix". Which command will display the changelog?

- A. `rpm -Vc postfix`
- B. `rpm -qpil postfix`
- C. `rpm --changelog postfix`
- D. `rpm -q --changelog postfix`

E. rpm -qa --changelog postfix

Answer: D

Explanation:

To query the changelog of installed package:

rpm-q --changelog packagename

QUESTION 139:

What would the command "rpm --allmatches rpmname" do?

- A. Remove all packages named allmatches
- B. Remove all packages with the package name rpmname
- C. Remove all packages regardless of name

Answer: B

Explanation:

Remove all versions of the package which match PACKAGE_NAME.

QUESTION 140:

What will happen when the following command is issued?

rpm -Uvh file

- A. The rpm file will be verified
- B. The installed package will be upgraded with the package in file, with verbose output
- C. The installed package may be upgraded with the package called file, giving verbose output and hash marks to show installation
- D. An error will occur as a package specifier was not included in the command line

Answer: C

Explanation:

This upgrades or installs the package currently installed to a newer version. It checks either old version is installed or not, if installed then it will upgrade to newer and install new if not installed.

QUESTION 141:

Which RPM command would produce the following output

Name : xwhois Relocations: (not relocatable)

Version : 0.3.7 Vendor: Jack Bill

Release : 1 Build Data: Fri 06 Aug 1999 09:29:07 AM EDT

Install date: (not installed) Build Host: desktop.infohvy.com

Group : Application/Internet Source RPM: (none)
Size : 74057 License: GPL
Packager : Ryan Weaver
URL : <http://www.goatnet.ml.org/software.html>
Summary : X Windows Whois Tool
Description: xwhois is a small and fast query tool for the whois service.
(rfc954)
xwhois-0.3.7.tar.gz
xwhois.spec

- A. rpm -qpil xwhois-0.3.7-1.src.rpm
- B. rpm-qx xwhois
- C. rpm-Vf xwhois-0.3.7-1.src.rpm
- D. rpm-verify xwhois-0.3.7-1.src.rpm
- E. rpm-showheaders xwhois-0.3.7-1.src.rpm

Answer: A

Explanation: The output is information of xwhois package. To display the information about the package, we use the -qi option.

QUESTION 142:

After a minor security incident you are instructed by your lead sys-admin to verify the RPM's installed on a running system. Which command will create a complete report which you can analyze for changes which may be security related?

- A. rpm -Va >report
- B. rpm -Qavy >report
- C. rpm -Vqt --nomd5 >report
- D. rpm --checkfiles >report
- E. rpm -Va --nofiles >report

Answer: A

Explanation:

Verifying a package compares information about the installed files in the package with information about the files taken from the package metadata stored in the rpm database. Among other things, verifying compares the size, MD5 sum, permissions, type, owner and group of each file. Any discrepancies are displayed.

To verify the package:

rpm-Va or -verify -a packagename

QUESTION 143:

You are about to install a new program on an RPM based Linux system. Which of the following would be the best way to accomplish this?

- A. Get the source code in a tarball and install from that source.
- B. Get a source RPM and use rpm to install it.
- C. Use rpm to install the program's binaries from an RPM package.
- D. Use cpi to extract the binaries from a source RPM and use rpm to install those sources.

Answer: C

Explanation: rpm command is used to install, upgrade or uninstall the rpm format package.

QUESTION 144:

How can you update a package only if an earlier version is currently installed on the system?

- A. rpm -- update rpmname
- B. rpm -U rpmname
- C. rpm -F rpmname
- D. rpm -- force rpmname
- E. rpm -u rpmname

Answer: C

Explanation: Upgrades, but only if the package installed.

QUESTION 145:

Type the shortest command including switches, to remove the installed Redhat Package named packagename from the system.

Answer: rpm -e packagename

Explanation

To Remove the package: rpm -e or --erase packagename

QUESTION 146:

Type the command line that will list information, and all file locations on the installed package mypackage?

Answer: rpm -qil mypackage

Answer: rpm -qli mypackage

Explanation:

Some common options of rpm command

-i or --install à Install the New package

-U or --upgrade à Upgrade the Package

-e or --erase à Remove the package

-q or --query à Query the package

-qi à Query the information of package

-ql à Query and list all files belongs to package.

Multiple options can be combined on single - and order can be different.

QUESTION 147:

Type the simplest RPM command to list where the package file Certkiller .rpm will install its files

Answer: rpm -qpl Certkiller .rpm

Answer: rpm -qlp Certkiller .rpm

Explanation

Some common options of rpm command

-i or --install à Install the New package

-U or --upgrade à Upgrade the Package

-e or --erase à Remove the package

-q or --query à Query the package

-qi à Query the information of package

-ql à Query and list all files belongs to package.

Multiple options can be combined on single - and order can be different.

QUESTION 148:

Type the command line to check the installed package mypackage for any configuration file changes since install?

Answer: rpm -V mypackage

Explanation:

Verifying a package compares information about the installed files in the package with information about the files taken from the package metadata stored in the rpm database. Among other things, verifying compares the size, MD5 sum, permissions, type, owner and group of each file. Any discrepancies are displayed.

To verify the package:

rpm-Va or -verify -a packagename

QUESTION 149:

What command on an rpm-based system will upgrade any existing packages on a system, but not add

any packages? Type just the command and switch(es).

Answer: rpm -F

Explanation: -U or -F both option is used to upgrade the package. -U option upgrade if lower version is installed otherwise install the new version package but -F option only upgrade if lower version package installed. As well as it doesn't add(install) any other packages.

QUESTION 150:

What command on an rpm-based system will upgrade any existing packages on a system, and add any packages needed? Type just the command and switch(es).

Answer: rpm -U

Explanation: -U or -F both option is used to upgrade the package. -U option upgrade if lower version is installed otherwise install the new version package but -F option only upgrade if lower version package installed. As well as it doesn't add(install) any other packages.

QUESTION 151:

What command can be used to show all variables?

- A. set
- B. varlist
- C. show var
- D. show

Answer: A

Explanation: Generally there are two types of variables are available in Linux. One is called the shell variable and another is called the Environmental Variable. Shell variable available in particular shell whether environmental variable available in all shells.

set : Displays all shell as well environmental variables.

env : Displays the environmental variables

QUESTION 152:

You wish to set your shell options so that the output from a redirect will NOT overwrite an existing file. Type the command including switches.

Answer: set -o noclobber

Explanation: noclobber global option controls the file overwriting to an existing file.
set -o : Lists all options with on/off status
set -o noclobber : Set on the noclobber and restrict to use the redirect (>) symbol.
set +o noclobber : Set off the noclobber and allow to use the redirect (>) symbol.

QUESTION 153:

You wish to turn off the shell option that stops you overwriting existing files. Type the command in that will do this including switches.

Answer: set +o noclobber

Explanation: noclobber global option controls the file overwriting to an existing file.
set -o : Lists all options with on/off status
set -o noclobber : Set on the noclobber and restrict to use the redirect (>) symbol.
set +o noclobber : Set off the noclobber and allow to use the redirect (>) symbol.

QUESTION 154:

You have just typed the following three commands and got the following output:

```
prompt> echo $PATH
/usr/bin:/usr/local/bin:usr/sbin:opt/kde/bin
prompt> pwd
/home/anna/games
prompt> ls
game1 game2 game3
```

You want to run the program game1, but get the response that it is not found.
What did you forget to do?

- A. To type ./game1 rather than game1.
- B. To switch the directory /home/anna first.
- C. To unset your PATH before running the program.
- D. To set execution permissions for the program game1.

Answer: A

Explanation: /home/anna directory is not set on path. So to execute the program from the directory not set in path, should execute by giving full path or use the ./ .
If you are in /home/anna use ./ means under current directory.
To set the directory on path
PATH=\$PATH:/home/anna/

QUESTION 155:

What is the name and full path of the file that contains the system wide Environment variables and Startup programs?

Answer: /etc/profile

Explanation: The /etc/profile shell script is first startup script run when a login shell is started. It only runs for the login shells, non-login shells do not invoke this script. This script will set a series of variables including PATH, USER, LOGNAME, MAIL, HOSTNAME, HISTSIZE, INPUTRC as well calls the startup programs to execute.

QUESTION 156:

Type in just the name of the command that allows you to edit the command history, and will execute the contents of the buffer when exited.

Answer: fc

Explanation: fc command allows the history command to edit as well as when you exit from the edit mode, It will executes the command.

QUESTION 157:

You wish to find out more information on a file e.g. Last accessed, Modified changed, Inode. What is the simplest command that would show this information for a file called certkiller?

Answer: stat CertKiller

Explanation: stat command displays the meta information of file.

Example:

stat file1

File: file1

Size: 5 Blocks:8 IO Block: 409 regular file

Device: 30ch/780d Inode: 16217 Links: 2

Access: (0644/-rw-r-r--) Uid: (0/ root) Gid: (0/ root)

Acces: 2006-04-16 12:50:44.000000000

Mondify: 2006-04-16 12:50:44.000000000

Change: 2006-04-16 12:50:44.000000000

QUESTION 158:

Which command will output the exit status of the previous command (a 1 or a 0)?

- A. echo \$?
- B. echo \$1
- C. echo \$EXIT
- D. exitstatus

Answer: A

Explanation: \$? is used to displays to catch the return value. When command executes it returns 0 or other value. 0 means command is executed successfully and other value means executed with error.

Example:

```
function test1()  
{  
echo "From test1 function"  
return 1  
}  
echo "Retrun Value is " $?
```

QUESTION 159:

What 3 letter command will show you the values set by the /etc/profile script file for the entire system?

Answer: env

Explanation:

env command is used to display the all environmental variables as well as values. Where /etc/profile file is used to set the value into the environmental variable.

QUESTION 160:

What 3 letter command will show you the values set by the /etc/bashrc script file for the entire system?

Answer: set

Explanation: set command is used to display the all shell as well as environmental variables as well as variables values.
env command is used to display the all environmental variables as well as values.

QUESTION 161:

Your Linux machine has 2 monitors. Your second monitor is configures as the second screen of the first display. If you want the "netscape" program to be displayed on your second monitor, what command should you use before starting netscape?

- A. export set display=:10; netscape
- B. export set DISPLAY=:0:0; netscape
- C. export set DISPLAY=:0:1; netscape
- D. export set DISPLAY=:1:0; netscape

Answer: C

Explanaton: Answer C is correct because:

export set DISPLAY=192.168.0.1:0 : means displays on first monitor of 192.168.0.1 host.
export set DISPLAY=192.168.0.1:1 : means on second monitor of 192.168.0.1 host.

QUESTION 162:

You have a dual-head workstation with two monitors. Your secondary monitor is defined as the second screen of the first display. You want to start Mozilla and display its window on the second display. Which command line would you use to achieve this?

- A. export DISPLAY=:1.0; mozilla
- B. export DISPLAY=:0.1; mozilla
- C. export SECOND=1; mozilla
- D. export SECOND=2; mozilla

Answer: A

Explanation: Answer C is correct because:

export set DISPLAY=192.168.0.1:0 : means displays on first monitor of 192.168.0.1

host export set DISPLAY=192.168.0.1:1 : means on second monitor of 192.168.0.1 host.

QUESTION 163:

What two files are used to configure a user's environment that was created with the default options?

- A. ~/.profile, ~/.bashrc
- B. /etc/profile, /bashrc
- C. ~/.bash_profile, ~/.bashrc
- D. /etc/.login, ~/.login
- E. None of the above

Answer: C

Explanation: /etc/profile: is the global file sets the value on environmental variable as well as executes the startup program.

/etc/bashrc : Global file sets the default permission, permanent aliases as well as permanent functions.

To set the user specific environment use

~/.bash_profile

~/.bashrc

~/.bash_logout

QUESTION 164:

Which of the following are executed ONLY during a Login session? Select all that apply.

- A. /etc/profile

- B. /etc/bashrc
- C. ~/.bashrc
- D. ~/.bash_profile
- E. ~/.bash_logout

Answer: A, D,E

Explanation: Startup scripts: For Login shell

/etc/profile

/etc/profile.d

~/.bash_profile

~/.bashrc

/etc/bashrc

Non-Login Shell

~/.bashrc

/etc/bashrc

/etc/profile.d

/etc/profile, ~/.bash_profile file calls when login shell provided users logged in.

~/.bash_logout: File calls when user logout from the shells, useful for backup, clearing /tmp etc.

QUESTION 165:

Which of the following are executed during a non-login shell? Select three.

- A. /etc/profile
- B. /etc/bashrc
- C. ~/.bash_profile
- D. ~/.bashrc
- E. ~/.bash_logout

Answer: B, D, E

Explanation: Startup scripts: For Login shell

/etc/profile

/etc/profile.d

~/.bash_profile

~/.bashrc

/etc/bashrc

Non-Login Shell

~/.bashrc

/etc/bashrc

/etc/profile.d

/etc/bashrc, ~/.bashrc file executes during a non-login shell.

~/.bash_logout: File calls when user logout from the shells, useful for backup, clearing /tmp etc.

QUESTION 166:

In which file are you likely to find the settings for umask, path, and ulimit on a per user basis?

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

Answer: C

Explanation: ~/.bash_profile and ~/.bashrc file for user specific settings, common to place variable settings, aliases, commands that places output to the screen, such as date command, should go in .bash_profile not .bashrc.

QUESTION 167:

In Bash, inserting "1>&2" after a command redirects

- A. standard error to standard input
- B. standard input to standard error
- C. standard output to standard error
- D. standard error to standard output
- E. standard output to standard input

Answer: C

Explanation:

Standard Input use < symbol and 0 is the integer value

Standard Output use > symbol and 1 is the integer value

Standard Error use 2> symbol and 2 is the integer value

Example:

find / - name passwd >allresult 1>&2 : Redirects all standard output as well as standard error to allresult file. Where & is the logical operator.

QUESTION 168:

What three letter command in Bash will display all environment variables?

Answer: env

Explanation: env command displays all environmental variables as well as it's value. Where set is another command displays all shell variables.

QUESTION 169:

Type in just the name of the default file that the command line history is stored in for a logged in user.

Answer: `.bash_history`

Explanation: One environmental variable named HISTFILE carrying the name of file to store the history command. By default the history commands stores in `~/bash_histroy`.

You can displays using the variable:

`echo $HISTFILE`

QUESTION 170:

Type just the name of the file in a normal user's home directory that will set their local user environment and startup programs on a default Linux system.

Answer: `.bash_profile`

Explanation: `~/bash_profile` and `~/bashrc` file for user specific settings, common to place variable settings, aliases, commands that places output to the screen, such as date command, should go in `.bash_profile` not `.bashrc`.

QUESTION 171:

On a default Linux system, what is the name of the file that sets users aliases and functions?

Answer: `.bashrc`

Explanation: `~/bash_profile` and `~/bashrc` file for user specific settings, common to place variable settings, aliases, commands that places output to the screen, such as date command, should go in `.bash_profile` not `.bashrc`.

QUESTION 172:

What is the name and full path of the file that contains the system wide aliases and functions for the default Linux shell?

Answer: `/etc/bashrc`

Exlanation: `/etc/bashrc` file sets the system wide aliases, functions as well as default permission umask value for root as well as non-root user.

QUESTION 173:

What is the name of the file that runs on user logout, usually set to clear the screen?

Answer: .bash_logout

Explanation: ~/bash_logout file execute when exiting a login shell, Useful for running programs automatically at logout ie, clear the screen, make backup files, delete temporary files, display date and time etc

QUESTION 174:

You are in your home directory. You have made changes to your .bash_profile and incorporated a modified PATH variable. Type in the command that will reread the .bash_profile and set the changes you have made.

Answer: source .bash_profile

Answer: .bash_profile

Explanation: ~/.bash_profile executes when login shell provided users login. So, to bring the changes made on ~/bash_login either user should re-login or manually executest the shell scripts file ~/.bash_profile.

QUESTION 175:

When a user executes the command "ps ax", what is shown on the console? Choose all that apply.

- A. Process's user-related information
- B. Processes without controlling terminals
- C. Processes used by the XFree86 System
- D. All regular processes
- E. Processes on remote machines

Answer: B, D

Explanation: Process are running in two different methods: one is terminal dependent (means controlled by terminal) and second is terminal independent (terminal independent).

ps -a: All process not including not controlled by terminal

ps -x : All process including not controlled by terminal

QUESTION 176:

You want to repeat command number 3 in your history. How would you do this?

- A. repeat 3
- B. !3
- C. show 3
- D. #3

Answer: B

Explanation: bash shell stores the history commands later we can re-execute the commands from the history.

!! : To repeat the last entered command

!n : To execute the command from history having n numbered.

!-n : To execute the command entered n command back

!c : To execute the command started from history started by c character.

QUESTION 177:

What symbol can be placed at the end of a line to indicate that the command continues on the next line?

- A. /
- B. \
- C. ;
- D. |
- E. :

Answer: B

Explanation: \ is use to kill the meaning of special character.

Example: echo "The rate is \\$5": which kills the meaning of \$ symbol so to kill the meaning of space/enter etc use the \ charater.

QUESTION 178:

What is the correct format for a proper command in the shell?

- A. Option Argument Command
- B. Command Argument Option
- C. Command Option Argument

Answer: C

Explanation: Syntax of executing the command in shell is
command [options] argument

example: ls -l /etc : Where ls is command, -l is option and /etc/ is the parameter or argument for ls command.

QUESTION 179:

Which of the following will allow both the commands to execute, regardless of their individual exit status?

- A. command1 | command2
- B. command1 \$ command2
- C. command1 & command2
- D. command1 ; command2
- E. command1 ^ command2

Answer: D

Explanation: ; helps to execute the multiple commands in order.

example: clear; first execute clear then is

&& is AND logical Operator

|| is OR logical operator

! is NOT logical Operator

QUESTION 180:

Which of the following will cause command2 not to execute if command1 fails?

- A. command1 & command2
- B. command1 && command2
- C. command1 || command2
- D. command1 | command2
- E. command1 ; command2

Answer: B

Explanation: && is the Logical AND operator, which means second command executes if first command executed successfully.

Example: cat a && ls : if cat a executes successfully then only ls command will execute otherwise exit from the cat command.

QUESTION 181:

How can you execute two commands, the second one being executed only if the first returns a nonzero (program execution failed) exit status?

- A. command1 || command2
- B. command1 && command2
- C. command1 \$\$ command2
- D. command1 @@ command2

Answer: A

Explanation: || is called the Logical OR Operator, which means either in sense either first or second. If first command exited with error then only second executes.

Example: cat a || ls : if cat command returns the error code then start to execute the ls command.

Remember that if command executes successfully then it returns zero value and if command executes with error it returns the error code.

QUESTION 182:

You want to repeat the last command you entered. How would you do this?

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

Answer: B

Explanation: !! re-executes the last entered command.

!n : executes the command from history n numbered in history list. You can use the history command to list all history commands.

QUESTION 183:

You want to view a listing of previously entered commands. What command would you use?

- A. hist
- B. histfile
- C. showbuff
- D. history

Answer: D

Explanation: history command lists all commands in history. All history commands stored in ~/.bash_history file.

QUESTION 184:

You wish to copy 3 lines down from your cursor position into the and append it to the b buffer. Type the key combination to do this.

Answer: "B3yy

QUESTION 185:

You want to run three commands one after the other, but don't care what exit they had. What command line would do this?

- A. cmd1 cmd2 cmd3
- B. cmd1, cmd2, cmd3

- C. cmd1: cmd2: cmd3
- D. cmd1; cmd2; cmd3

Answer: D

Explanation:

symbol helps to separate the multiple command. It never checks the return value so not like the logical operator.

Example: cat a;ls;date: three command are combined first executes command then is and then date.

QUESTION 186:

Type in the command line that will execute cmd2 regardless of exit status of cmd1. Assume these commands are on the systems PATH and the command names are cmd1 and cmd2.

Answer: cmd1;cmd1

Alternative correct answers:

cmd1;cmd2

cmd1;cmd2

cmd1;cmd2

Explanation: ; symbol helps to separate the multiple commands. it never checks the return value so not like the logical operator.

Example: cat a;ls;date : three commands are combined first executes cat command then ls and then date

QUESTION 187:

What command would execute cmd1 followed by cmd2, regardless of the exit status of cmd1?

- A. cmd1 cmd2
- B. cmd1 | cmd2
- C. cmd1 ; cmd2
- D. cmd1 && cmd2
- E. cmd1 || cmd2

Answer: C

Explanation: ; symbol helps to separate the multiple commands. it never checks the return value so not like the logical operator.

Example: cat a;ls;date : three commands are combined first executes cat command then ls and then date

QUESTION 188:

Which keystrokes will move the cursor 3 lines down and 4 characters to the right?

- A. 3j4l
- B. 3k4m
- C. 3h4j
- D. 3l4k

E. 3m4k

Answer: A

Explanation:

Cursor Movement in vi editor:

h : Left

j : down

k : up

l : right

Example: when you press the h key it moves the cursor in left of one character.

3h: moves the cursor in 3 characters left

QUESTION 189:

You want to repeat a command that began with the letters 'ab'. How would you do this?

A. !ab

B. list ab

C. #ab

D. show ab

Answer: A

Explanation: bash shell stores the history commands later we can re-execute the commands from the history.

!! : To repeat the last entered command

!n : To execute the command from history having n numbered.

!-n : To execute the command entered n command back

!c : To execute the command started from history started by c character.

QUESTION 190:

What option is used with the useradd command to specify the user's home directory?

A. -d

B. -h

C. -u

D. -a

Answer: A

Explanation: useradd command is used to add the user in the system. By default it creates the user's home directory in /home if you want to specify the user's home directory in different location use the -d and name of directory with path.

Example:

`useradd -d /var/user1 user1`

`useradd -s /bin/sh user1` : Sets the sh shell as default shell to user user1

After adding the user use the `usermod` command to change the user's home directory, login shell, account lock, account unlock etc.

QUESTION 191:

What switch is used with the `usermod` command to change a user's secondary groups?

- A. -G
- B. -group
- C. -d
- D. -U

Answer: A

Explanation: When we create the user, by default user belongs to its private group as a primary group. After adding the user into the system, if you want to change:

`usermod -g groupname username`

To make user belongs to secondary group:

`usermod -G groupname username`

QUESTION 192:

You are adding a new user. You want to create the user's home directory only if the directory does not exist. Which of the following would accomplish this?

- A. `useradd -m`
- B. `useradd -h -y`
- C. `useradd -u`
- D. `useradd -h`

Answer: A

Explanation:

When we issue the `useradd` command, it creates the user by creating the user's home directory into `/home`.

If you create the user's home directory into different location:

`useradd -d directory username`

If you want to check whether user's directory is already created or not :

`useradd -m`

QUESTION 193:

You want a user's account to expire in ten days. What option used with the `useradd` command will allow you to do this?

- A. -e
- B. -u
- C. -d
- D. -t

Answer: A

Explanation: To set the account expire date into the useradd command:

```
useradd -e "date" username
```

After creating the user also you can set the account expire date:

```
usermod -e "date" username
```

you can display the password aging policy as well as account expire date using the chage -l username

QUESTION 194:

What switch is used with the useradd command to specify a user's initial group?

- A. -g
- B. -i
- C. -u
- D. -ig

Answer: A

Explanation: When we create the user it creates the group same username and make user belongs to that group as a private group. If you want to change the private group at user creating time:

```
useradd -g groupname username
```

QUESTION 195:

What option is used with the useradd command to specify the user's user id?

- A. -u
- B. -s
- C. -ui
- D. -id

Answer: A

Explanation: By default 0-499 user id reserved for system user and starts to assign from 500 to normal user. To set the user id at useradd command use the -u option.

Example:

```
useradd -u 1000 user1 : Which creates the user user1 having user id 1000.
```

You can display user id as well as group id using the id command

QUESTION 196:

What option is used with the useradd command to specify the user's login shell?

- A. -s
- B. -l
- C. -u
- D. -sh

Answer: A

Explanation: When we create the user it assign the bash shell to user, to assign the different shell use the -s option.

Example:

useradd -s /bin/sh user1 : which creates the user user1 by assigning the /bin/sh shell.

You can check the /etc/passwd file to check the user id, user's private group id, home directory and login shell.

QUESTION 197:

You want there to be 3 grace days after a password expires before an account becomes disabled. How would you do this?

- A. Use the useradd command with the -f switch
- B. Check the delay option in user admin
- C. Edit the user's user.conf file
- D. Use the useradd command with the -d switch

Answer: A

Explanation: useradd -f inactive_days username : The number of days after a password expires until the account is premanently disabled. A value of 0 disables the account as soon as the password has expired, and a value of -1 disables the feature.

QUESTION 198:

Which of the following can be used to change a user's home directory?

- A. usermod -d
- B. usermod -h
- C. usermod -u
- D. usermod -c

Answer: A

Explanation: To change the user's home directory use the -d option in usermod command.

Example:

usermod -d /var/user1 user1 : Which sets the home directory of user user1 into the /var/user1.

usermod -s /bin/sh user1 : Which sets the default shell of user user1 sh shell.

usermod -L user1 : Which locks the user account

usermod -U user1 : Which unlocks the user account

QUESTION 199:

You had a contractor come into your company. You originally set his account to expire after thirty days. You now need to change this. How can you do this?

- A. usermod -e
- B. usermod -a
- C. usermod -x
- D. usermod -d

Answer: A

Explanation: To set the account expire date:

usermod -e "date" username

Example: usermod -e "May 20 2006" user1

QUESTION 200:

Which of these commands would report how many total accounts (including special accounts) there are?

- A. count /etc/passwd
- B. nl /etc/passwd | head
- C. wc --users /etc/passwd
- D. wc --lines /etc/passwd
- E. expand --lines /etc/passwd

Answer: D

Explanation: wc command displays the number of lines, words and characters.

wc filename : prints number of lines, words and characters.

wc -l or --lines filename : prints the number of lines in file.

wc -w or --words filename : prints the number of words in file.

wc -c filename : prints the number of characters in file.

QUESTION 201:

What does the following command do?

cat '\$TEST'

- A. Displays a bash syntax error message.
- B. Displays the contents of the file named \$TEST if it exists.
- C. Waits for the user to enter text and then echos the text back.
- D. Displays the contents of the file named inside the back quotes.
- E. Displays the contents of the named by the environment variable TEST.

Answer: B

Explanation:

Variable is called the memory location containing the value. In linux we can read the value of variable starting by \$ symbol at starting of variable name.

Example: FILENAME=test.txt

echo \$FILENAME : Displays the value of variable FILENAME

cat \$FILENAME : Displays the contents of file of \$FILENAME

QUESTION 202:

file1 and file2 are text files in your local directory.

file1 contains this:

allan

bart

cesar

file2 contains this:

alicia

beatrice

Cecilia

What would the output of the following command be?

tac file1 file2

- A. allan/ bart/ cesar/ alicia/ beatrice/ cecilia
- B. alicia/ beatrice/ cecilia/ allan/ bart/ cesar
- C. alicia/ beatrice/ cecilia/ cesar/ bart/ allan
- D. cecilia/ beatrice/ alicia/ cesar/ bart/ allan
- E. cesar/ bart/ allan/ cecilia/ beatrice/ alicia

Answer: E

Explanation: tac command concatenate and print files in reverse order.

Example:

file1 contains :

a

bc

and file2 contains

123

if you use `tac file1 file2`

Output is like:

```
c
ba
321
```

QUESTION 203:

Which of the following would copy the file `file1.txt` to `file2.txt`?

- A. `cp file1.txt | file2.txt`
- B. `cat file1.txt | file2.txt`
- C. `cat file1.txt > file2.txt`
- D. `copy file1.txt | file2.txt`
- E. `cat | file1.txt |file2.txt`

Answer: C

Explanation: We can redirect the standard output into the file using the redirect (`>`) symbol.

Example: `ls -l >result` : Redirects the standard output of `ls -l` command into the result file. Similarly `cat` redirect the contents of one file into another.

`cat file1 >file2` : `cat` reads the contents of `file1` and creates the new file `file2`, which contains the text of `file1`.

Similarly you can append into the existing file using append (`>>`) symbol.

QUESTION 204:

What command would help you identify the I/O address range being used by the network card?

- A. `cat/proc/modules`
- B. `cat/proc/devices`
- C. `cat/proc/meminfo`
- D. `cat/io/dma`
- E. `cat/proc/ioports`

Answer: E

Explanation: `/proc` is called the virtual file system, which contains the information about the running kernel.

`/proc/ioports` file contains the I/O address range being used by the network card.

When you read the file `/proc/ioports` :

`d800-d8ff : 8139too` : Where `8139too` is the module of Realtek Ethernet card.

QUESTION 205:

Type the command will identify the io address range used by a NIC?

Answer: `cat /proc/ioports`

Explanation: /proc is called the virtual file system, which contains the information about the running kernel.

/proc/ioports file contains the I/O address range being used by the network card.

When you read the file /proc/ioports :

d800-d8ff : 8139too : Where 8139too is the module of Realtek Ethernet card.

QUESTION 206:

What is the result of the following command?

```
# cat 'echo "$ Certkiller
```

- A) A syntax error
- B) The value of \$ Certkiller
- C) cat followed by the value of \$ Certkiller
- D) echo followed by the value of \$ Certkiller
- E) echo followed by \$ Certkiller

Answer: A

Explanation:

Variable is called the memory location containing the value. In linux we can read the value of variable starting by \$ symbol at starting of variable name.

Example: `Certkiller =test.txt`

`echo $ Certkiller` : Displays the value of variable Certkiller

`cat $ Certkiller` : Displays the contents of file of \$ Certkiller

In question ' is started which is incorrect syntax.

QUESTION 207:

To convert all uppercase letters in stream to lowercase, pipe the stream into which command:

- A. `tr A-Z a-z`
- B. `tac A-Z a-z`
- C. `sed /A-Z a-z`
- D. `sed -tolower`
- E. `conv [A-Z] [a-z]`

Answer: A

Explanation: tr command translate the characters, that is given ranges of characters, any time a character in range 1 is found, it is translated into the equivalent character in range 2.

Example:

tr 'a-z' 'A-Z' <test.txt: Which translates all characters of test.txt file from lower to upper.

QUESTION 208:

Which of the following command would most likely be used to output a file in reverse? Choose TWO correct answers.

- A. tac
- B. pr
- C. rev
- D. sed
- E. back

Answer: A, B

Explanation: tac command concatenate and print files in reverse order.

Example:

file1 contains :

a
bc

and file2 contains

123

if you use tac file1 file2

Output is like:

c
ba
321

pr command reformat the text for printing.

QUESTION 209:

You have a file with the following contents:

allan
bart
ceasar
alicia
beatrice
cecilia

What single command could you use to list the file contents in reverse order? (Include only the command without options or arguments)

Answer: tac

Explanation: tac command concatenate and print files in reverse order.

Example:

file1 contains :

a

bc

and file2 contains

123

if you use tac file1 file2

Output is like:

c

ba

321

QUESTION 210:

You have a file with the following contents:

allan

bart

ceasar

alicia

beatrice

Cecilia

What single command could you use to list the file contents in reverse order? Please include only the command without options or arguments.

Answer: tac

Explanation: tac command concatenate and print files in reverse order.

Example:

file1 contains :

a

bc

and file2 contains

123

if you use tac file1 file2

Output is like:

c

ba

321

QUESTION 211:

What command will easily convert tabs in files to spaces?

A. convert

B. expand

C. tr

D. sed

E. None of the above

Answer: B

Explanation: expand command convert the tabs into the spaces.

Example:

expand -t1 <a : Which converts the tab into one space of file a.

QUESTION 212:

Which of the following would do the same as the command `cat < file1.txt > file2.txt`?

- A. `cat < file1.txt file2.txt`
- B. `cat file1.txt >file2.txt`
- C. `cat <file1.txt | file2.txt`
- D. `cat file 1.txt | file2.txt`
- E. `cp file1.txt>file2.txt`

Answer: B

Explanation: `cat file1.txt >file2.txt` cat command takes input from the file file1 and redirect the output into the file file2 which is similar to `cat <file1.txt >file2.txt`.

QUESTION 213:

Which of the commands will show you only the middle 10 lines of a 30 line text file named `textfile`?

- A. `head -n 11-20 textfile`
- B. `head -n 20 textfile | tail`
- C. `tail -n 11-20`
- D. `cat textfile | pr -n 11-20`
- E. `nl -n 11-30 textfile`

Answer: B

Explanation: head command displays default 10 lines from the top of file and tail displays the default 10 lines from the bottom of file.

To display the custom number of lines:

`head -n 20 filename`

To displays the contents of file from middle:

`head -n 20 a | tail` : displays middle 10 lines

`head -n 30 a | tail` : displays middle 10 lines from 20-30.

QUESTION 214:

Which command will display in reverse order a file that is numbered from 1 to End of File?

- A. cat file | nl | pr
- B. cat file | nl | tac
- C. cat file | tac | nl
- D. cat file | pr -n | reverse
- E. None of the above

Answer: B

Explanation: nl command number lines of files.
cat filename | nl | tac : display in reverse order of file that is numbered from 1 to end of file.

QUESTION 215:

What command will show the first 10 lines of a file by default?

- A. head
- B. cat
- C. tac
- D. nl
- E. tail

Answer: A

Explanation: head command by default displays 10 lines from the top of file and tail command by default display 10 lines from the bottom of file.
head -n or --lines 20 filename : Displays 20 lines from the top of file.

QUESTION 216:

What command will show the last 10 lines of a file by default?

- A. tail
- B. head
- C. cat
- D. prstat
- E. ps

Answer: A

Explanation: head command by default displays 10 lines from the top of file and tail command by default display 10 lines from the bottom of file.
tail -n or --lines 20 filename : Displays 20 lines from the top of file.

QUESTION 217:

Your lead sysadmin has asked you to add a second NIC to a Linux machine.

Which of the following commands would be best to determine which interrupts are currently in use on this machine?

- A. cat /proc/ioports
- B. cat /proc/interrupts
- C. cat /proc/memoryinfo
- D. which interrupts
- E. tail /var/log/messages

Answer: B

Explanation:

The Linux /proc Directory is a Virtual Filesystem provided by linux kernel. /proc contains files and directories that let system administrators and programmers access system information.

The file /proc/interrupts file contains information on interrupts and IRQs. First Ethernet card device name is eth0, second Ethernet card device name is eth1 ..., to identify that dev will conflict or not , see the contains of file. Already eth0 is appeared or not ?

Here is the output of /proc/interrupts

CPU0

0: 380893 XT-PIC timer

1: 843 XT-PIC i8042

2: 0 XT-PIC cascade

5: 0 XT-PIC uhci_hcd

8: 1 XT-PIC rtc

11: 48 XT-PIC Intel 82801AA-ICH, eth0

14: 6086 XT-PIC ide0

NMI: 0

ERR: 0

For a multi-processor machine, this _le may look slightly different:

CPU0 CPU1

0: 1366814704 0 XT-PIC timer

1: 128 340 IO-APIC-edge keyboard

2: 0 0 XT-PIC cascade

8: 0 1 IO-APIC-edge rtc

12: 5323 5793 IO-APIC-edge PS/2 Mouse

13: 1 0 XT-PIC fpu

16: 11184294 15940594 IO-APIC-level Intel EtherExpress Pro

10/100 Ethernet

20: 8450043 11120093 IO-APIC-level megaraid

30: 10432 10722 IO-APIC-level aic7xxx

31: 23 22 IO-APIC-level aic7xxx

NMI: 0

ERR: 0

Appeared Number of CPU, Number of Ethernet card.

QUESTION 218:

Which of the following will copy file1.txt to file2.txt? Choose Two.

- A. `cat file1.txt > file2.txt`
- B. `cat file1.txt | file2.txt`
- C. `cp file1.txt > file2.txt`
- D. `cp file1.txt file2.txt`
- E. `cpio < file1.txt > file2.txt`

Answer: A, D

Explanation: We can redirect the standard output into the file using the redirect (>) symbol.

Example: `ls -l >result` : Redirects the standard output of `ls -l` command into the result file. Similarly `cat` redirect the contents of one file into another.

`cat file1 >file2` : `cat` reads the contents of file1 and creates the new file file2, which contains the text of file1. `cp` (copy) command also copy the file.

Similarly you can append into the existing file using append (>>) symbol.

QUESTION 219:

What utility would use to remove/display columns from each line of a file?

- A. `pwd`
- B. `col`
- C. `cut`
- D. `tail`
- E. `extract`

Answer: C

Explanation: `cut` command displays the specific column from the text file.

Example: `cut -d: -f 1 /etc/passwd` : Displays the first column from the file `/etc/passwd` where `-d` means delimiter and `-f` means field number.

QUESTION 220:

After executing the following command line, what will be the contents of the file `myout.txt`?

```
echo \" Certkiller \" | cat > myout.txt
```

- A. Certkiller

- B. " Certkiller "
- C. Certkiller cat
- D. the file is empty

Answer: B

Explanation: The contents of myout.txt will be Certkiller .
echo command displays into the standard output and cat command redirects the output of echo into the file myout.txt

QUESTION 221:

You wish to cut the 3rd and 7th fields from a colon (:) delimited text file called 'my Certkiller ' and display them on the screen. Type the command that would do this?

Answer: `cut -d : -f 3,7 my Certkiller`

Answer: `cut -d: -f3,7 my Certkiller`

Answer: `cut -f3,7 -d: my Certkiller`

Answer: `cut -f 3,7 -d : my Certkiller`

Explanation: cut command displays the specific column from the text file.
Example: `cut -d: -f 1 /etc/passwd` : Displays the first column from the file /etc/passwd where -d means delimiter and -f means field number. To display the contents of multiple column, comma separator can use.

QUESTION 222:

What command returns the first few lines of a given file?

Answer: head

Explanation: head command displays the few lines from the top of file. By default displays 10 lines.
Example: `head myfile`
`head -n or --lines 20 myfile`

QUESTION 223:

What command is used to display a file in octal format?

Answer: od

Explanation: od command displays the contents of file into octal format.

Example: od filename

QUESTION 224:

You need to replace all instances of the word Certkiller with Certkiller in a file called file.txt, and send the output to a file named Certkiller .txt. Type the simplest command string to accomplish this.

Answer: sed 's/ Certkiller / Certkiller /g' file.txt > Certkiller .txt

Explanation: sed also called the stream editor, generally use for find and replace.

sed 's/ Certkiller / Certkiller /g' file.txt > Certkiller .txt means search the Certkiller and replace into Certkiller globally and redirects the replced output into Certkiller .txt file.

QUESTION 225:

You want to redirect the last 30 lines of a file to another file.

What single command would best fit your needs?

Answer: tail

Explanation: tail command displays the few lines from the bottom of file. By default it displays the 10 lines.

Example

tail filename

tail -n 30 filename >anotherfilename : Redirects the last 30 lines into another file.

QUESTION 226:

Which line below would count the total number of lines with the word " Certkiller " in /var/log/maillog?

- A. wc -l ' Certkiller /var/log/maillog'
- B. for " Certkiller " in [maillog (count) +1]
- C. wc -l /var/log/maillog | grep ' Certkiller '
- D. cat /var/log/maillog | grep ' Certkiller ' | wc -l
- E. cat /var/log/maillog | grep ' Certkiller ' | wc -r

Answer: D

Explanation: grep command displays the lines matching the criteria.

Example: grep root /etc/passwd : displays all lines having root pattern.

Wc command counts the lines, words and characters into the file.

Example: wc filename : displays number of lines, words and characters

wc -l filename : displays only the number of lines from the file.

Were Pipe symbol helps to combine the command, which sends the output of first command as input to second command.

Answer D is correct because cat reads the contents of /var/log/maillog and sends the standard output to grep command, g rep command filters the output only the lines having Certkiller pattern sends to wc which counts the number of lines containing the Certkiller pattern.

QUESTION 227:

Which of the following commands can you use to rename a file in Linux?

- A. n
- B. mv
- C. new
- D. rm

Answer: B

Explanation: mv command is used to move as well as to rename the file.

Example:

mv file1 file2 : Which renames the file1 to file2.

mv file1 /tmp : Which moves the file file1 into /tmp

mv file1 /tmp/file2 : Which moves as well as rename the file file1

QUESTION 228:

What dose the command cd~foo do?

- A. It will take you to the ~foo directory.
- B. It will create the foo directory and change to it
- C. It will take you to the home directory of the user "foo"
- D. It will change the directory to the system foo directory.
- E. It will change to the foo directory in your home directory.

Answer: C

Explanation: ~ symbol represents the user's home directory.

Example: cat ~/test.txt : Which reads the file resident in user's home directory.

cd ~/foo : Which enters into the foo directory resident into the user's home directory.

QUESTION 229:

As root you have navigated to directory /B. You wish to move all of the files and directories from directory /A to directory /B. Which of the following options would be the most appropriate command line to execute this task?

- A. cp /a/* .
- B. mv -f /A/* .

- C. `mv -Rf /a/* .`
- D. `cp -f /a/* ..`
- E. `cp -rf /A/* /b/`

Answer: B

Explanation: `mv` command is used to move as well as to rename the file.

Example:

`mv file1 file2` : Which renames the file1 to file2.

`mv file1 /tmp` : Which moves the file file1 into /tmp

`mv file1 /tmp/file2` : Which moves as well as rename the file file1

`-f` option of `mv` command is used for forcibly move.

QUESTION 230:

One of the lines in the output from the command `'ls -l/home/pomes'` is:

```
drwxrwsr-x 3 devel poms 1024 Oct 22 16:28 foo
```

The output from the command `groups bubba` is:

```
bubba : bubba poms acts
```

If user `bubba` executes the command `touch/home/poms/foo/bar`, which TWO of the following must be true?

- A. The group for `/home/poms/foo/bar` will be `poms`.
- B. The owner for `/home/poms/foo/bar` will be `devel`
- C. The owner for `/home/poms/foo/bar` will be `bubba`.
- D. The group for `/home/poms/foo/bar` will be `bubba`.
- E. The permissions for `/home/poms/foo/bar` will allow group read.

Answer: A, C

Explanation: See carefully on output that, SGID bit is set on directory and group owner of that directory is `poms`. When SGID bit is set on directory, automatically all new creating files/directories group owner is same as parent directory means same as `foo`.

To set the SGID bit:

```
chmod g+s directory
```

To Remove the SGID bit:

```
chmod g-s directory
```

So, when `bubba` user executes the `touch /home/poms/foo/bar` the group owner automatically `poms` and owner user is that user who executed the command means

QUESTION 231:

Which command removes all subdirectories in `/tmp`, regardless of whether they are non-existent or in use?

- A. del /tmp/*
- B. m -rf /tmp
- C. rm -Ra /tmp/*
- D. rm -rf /tmp/*
- E. delete /tmp/*,*

Answer: D

Explanation: rm command removes the files/directorires.

Syntax: rm [options] file/directory

-f : forcely

-r : Recursively

-i : Interactively.

rm -rf /tmp/* : Which removes all files as well as directories forcely from /tmp directory.

QUESTION 232:

A directory contains the following files:

```
#ls
ratas saran jacaw cabal cabin
```

You issue the command "ls | grep .a[^b]a.", what files are returned by the command? Choose all that apply.

- A. ratas
- B. jacaw
- C. saran
- D. cabal
- E. cabin

Answer: A, B, C

Explanation: Remember the wildcard Character in string processing

* : Zero or more character

. : Any Single Character

[a-z] : Any single Character from the range

[^a-z] : Any single Character except from the range

ls | grep .a[^b]a. means that word having five characters, starting with any character but a should be in second position, third position shouldn't be b and fourth character should be a and any single character in fifth position.

grep command is use to process the string with different pattern.

QUESTION 233:

You need to display all files in the current directory that start with a "a" and end with a "v", regardless of their length or use of delimiters. Choose the best answer.

- A. `ls a*v`
- B. `ls a.v`
- C. `ls a-v`
- D. `ls [a-v]`

Answer: A

Explanation: Wildcard characters :

* Zero or more character

? Any Single Character

[a-z] Any Single Character from the range

[^a-z] Any Single Character except from the range

`ls a*v` means list all files/directories starting with a character and ended with v character.

QUESTION 234:

You want to move all files in /dir1 to /dir2 that begin with a and end with v. What is the correct command to do this?

- A. `mv /dir1/a*v /dir2`
- B. `mv -r /dir1/a.v /dir2`
- C. `move /dir1/a?v /dir2`
- D. `ls a*v | cp /dir2`
- E. `mv /dir1/[a-v] /dir2`

Answer: A

Explanation: Wildcard characters :

* Zero or more character

? Any Single Character

[a-z] Any Single Character from the range

[^a-z] Any Single Character except from the range

`mv /dir1/a*v /dir2` means all the contents of /dir1 starting name with a character and ended with v character will move into the /dir2 directory.

QUESTION 235:

You wish to copy the full contents of the /home/Jack directory and all subdirectories to the /home/Bill directory.

Type in the simplest command to do this.

Answer: `cp -R /home/Jack/* /home/Bill`

Explanation: `cp` command copies files/directories.

Syntax: `rm [options] file/directory`

`-f` : forcibly

`-r` : Recursively

`-i` : Interactively.

`cp -r /home/Jack/* /home/Bill` : Which copy all the contents of /home/Jack into the /home/Bill.

QUESTION 236:

You wish to move all files and directories from within /home/john to the directory /home/certkiller. Type in the command line that would do this?

Answer: `mv /home/john/* /home/certkiller`

Answer: `mv /home/john/* /home/certkiller/`

Explanation: `mv` command is used to move as well as to rename the file.

Example:

`mv file1 file2` : Which renames the file1 to file2.

`mv file1 /tmp` : Which moves the file file1 into /tmp

`mv file1 /tmp/file2` : Which moves as well as rename the file file1

`mv /home/john/* /home/Certkiller` : Moves all the contents of /home/john into /home/Certkiller.

QUESTION 237:

What command will remove all files named core in the home directories of users (/home), that are more than 7 days old? Type in the simplest command that would do this, without any prompting to delete the files.

Answer: `find/home-mtime+7-name core-execrm -f {} \;`

Explanation: To search the files or directories, we use the `find` or `locate` command where `locate` command search on it's database but faster than `find` command. `find` command searches the files/directories in different condition but accurate than `locate` command.

Syntax for `find` command:

`find path condition action`

Example: `find /etc -name passwd` : Search files or directories in /etc named passwd.

Similarly you can use other options:

`-atime` : Access Time

`-mtime` : Modified Time

`-ctime` : Change Time

`-name` or `-iname` : According to file name

`-type` : According to file type

Action in `find` command can start from `-exec` command.

Example: `find/tmp-type f-exec rm {} \;` Which search all normal files and remove it.

find/home-mtime+7-name core-exec rm-f {} \;; Which searches files named core it. more than 7 days old and removes that file.

QUESTION 238:

Which of the following commands will duplicate the contents of the /A directory in the existing and empty /B directory?

- A. mv /A/* /B
- B. mv /A/ /B
- C. mv /A /B
- D. mv /A/* .

Answer: A

Explanation: mv command is used to move as well as to rename the file.

Example:

mv file1 file2 : Which renames the file1 to file2.

mv file1 /tmp : Which moves the file file1 into /tmp

mv file1 /tmp/file2 : Which moves as well as rename the file file1

mv /home/john/* /home/Certkiller : Moves all the contents of /home/john into /home/Certkiller.

QUESTION 239:

What command takes you to your home directory without using a path?

Answer: cd *

Explanation: ~ symbol represents the user's home directory. cd ~ command enters into the user's home directory. Similarly cat ~/test.txt displays the contents of test.txt resident into user's home directory.

QUESTION 240:

What will the command cd ~ do?

- A. Take you to the ~ directory
- B. Take you to the sys directory.
- C. Take you to your home directory.
- D. Nothing, this command is invalid.

Answer: C

Explanation: ~ symbol represents the user's home directory. cd ~ command enters

into the user's home directory. Similarly `cat ~/test.txt` displays the contents of `test.txt` resident into user's home directory.

QUESTION 241:

What will the command "`cd ~ Certkiller`" do?

- A. Changes directory to the user Certkiller 's home directory
- B. Changes to a directory named Certkiller in the current user's home directory
- C. Changes to directory `/etc/ Certkiller`
- D. Produces a syntax error
- E. None of the above

Answer: A

Explanation: `~` symbol represents the user's home directory. `cd ~` command enters into the user's home directory. Similarly `cat ~/test.txt` displays the contents of `test.txt` resident into user's home directory.

QUESTION 242:

To send input to both stdout AND a file, you use the _____ command.

Answer: tee

Explanation: tee command redirect output to a file while still piping it to another program.

Example: `set | tee set.out | less` : In example, output from `set` is written to file `set.out` while also being piped to `less`.

QUESTION 243:

To change all lower case characters in a file to upper case, pick the correct command. Select all that apply.

- A. `tr 'a-z' 'A-Z' file`
- B. `tr [a-z] [A-Z] < file`
- C. `tr "a-z" "A-Z" file`
- D. `tr 'a-z' 'A-Z' < file`
- E. `tr {a-z} {A-Z} > file`

Answer: B, D

Explanation: `tr` command is used to translate the character.

Example: `tr 'a-z' 'A-Z' <test.txt` : Which translate all characters in `test.txt` into upper case and displays in standard output but no effect into the original file. So, B and D both answer are correct.

QUESTION 244:

What does the command "foo < bar | foobar" do?

- A. foo reads bar as stdin, pipes output to foobar
- B. foo and bar are fed to foobar as stdin
- C. foo's output is sent to bar, output is written to foobar
- D. None of the above

Answer: A

Explanation:

Common Redirection Operators

Command >file : Redirects standard output of command into the file

Command >>file : Append the standard output of command into the file

Command <file : Takes input from file rather than keyboard

Command 2>file : Redirects the standard Error into the file

And Pipe (|) is used to combine the command, in piping output of first command goes as input to the second command.

Answer A is correct because foo command takes input from the bar file and sends the standard output to foobar command.

QUESTION 245:

In the command 'test < bill | Certkiller '.

- A. The stdout from the command Certkiller is saved to the file test.
- B. The stdout from the command test is saved to the file Certkiller .
- C. The command Certkiller receives its stdin from the stderr of test.
- D. The command Certkiller receives its stdin from the stdout of test.
- E. The command bill receives its stdin from the contents of the file Certkiller .

Answer: D

Explanation:

Common Redirection Operators

Command >file : Redirects standard output of command into the file

Command >>file : Append the standard output of command into the file

Command

Command 2>file : Redirects the standard Error into the file

And Pipe (|) is used to combine the command, in piping output of first command goes as input to the second command.

Answer D is correct because test command takes input from the Bill file and sends the standard output to Certkiller command.

QUESTION 246:

You are writing a script to automate some tasks. You would like to be able to have a log of everything that you see printed to your console, yet you want to be able to see the output on the console as well. What textutils command would typically be used to accomplish this?

Answer: tee

Explanation: tee command redirect output to a file while still piping it to another program.

Example: set | tee set.out | less : In example, output from set is written to file set.out while also being piped to less.

QUESTION 247:

You need to have all the output from the executable myprog written to a text log named file1.out. This program must not send any output to the console. Which of the commands listed will accomplish this?

- A. myprog > file1.out 2>&1
- B. myprog > file1.out 1>&2
- C. myprog > file1.out 1> /dev/null
- D. myprog 1&2> file1.out
- E. myprog 1> /dev/null > file1.out

Answer: A

Explanation:

Common Redirection Operators

Command >file : Redirects standard output of command into the file

Command >>file : Append the standard output of command into the file

Command

Command 2>file : Redirects the standard Error into the file

And Pipe (|) is used to combine the command, in piping output of first command goes as input to the second command.

When we executes the command it generates the standard output as well as standard error and displays in standard output (Terminal Window) is default.

When we redirect the standard error as well as standard output into the file, it will not send any output into the terminal window.

myprog >file1.out 2>&1 : Where & works as a Logical AND Operator.

QUESTION 248:

What does the following command's characters do?

cmd > file.out 2>&1

- A. Sends the stdout of cmd to file.out

- B. Sends the stdout and stderr of cmd to file.out
- C. Sends the stderr to the bit bucket and stdout of cmd to file.out
- D. None of the above

Answer: B

Explanation:

Common Redirection Operators

Command >file : Redirects standard output of command into the file

Command >>file : Append the standard output of command into the file

Command <file : Takes input from file rather than keyboard

Command 2>file : Redirects the standard Error into the file

And Pipe (|) is used to combine the command, in piping output of first command goes as input to the second command.

When we execute the command it generates the standard output as well as standard error and displays in standard output (Terminal Window) is default.

When we redirect the standard error as well as standard output into the file, it will not send any output into the terminal window.

QUESTION 249:

What command can be used to print out system boot messages?

- A. bootm
- B. bmsg
- C. messages
- D. dmesg

Answer: D

Explanation: dmesg command prints the boot messages, you can check which devices are detected by your kernel or not from the boot log messages.

QUESTION 250:

What is the result of the following command?

command > file1.out 2>&1

- A. Redirects stderr to file1.out
- B. Redirects the stderr to the same location as the stdout.
- C. Redirects stdout to the screen and stderr to file.out
- D. Redirects all the output to the same location as the stderr

Answer: B

Explanation:

Common Redirection Operators

Command >file : Redirects standard output of command into the file

Command >>file : Append the standard output of command into the file

Command <file : Takes input from file rather than keyboard

Command 2>file : Redirects the standard Error into the file

And Pipe (|) is used to combine the command, in piping output of first command goes as input to the second command.

When we execute the command it generates the standard output as well as standard error and displays in standard output (Terminal Window) is default.

When we redirect the standard error as well as standard output into the file, it will not send any output into the terminal window.

QUESTION 251:

You set a variable's value with the command "export TEST=snuffy" and then after executing the following script file, you type the command "echo \$TEST".

```
scriptfile1
#!/bin/bash
USER=certkiller
TEST=$USER
```

What is the variable's value that is returned?

- a) snuffy
- b) certkiller
- c) empty
- d) variable undeclared
- e) TEST

Answer: A

QUESTION 252:

Which daemon will send kernel alert messages?

- A. alertd
- B. smtpd
- C. krnl
- D. syslogd

Answer: D

QUESTION 253:

Which of the following syslog.conf entries would cause kernel error messages to be sent to the system console?

- A. kern warning console

- B. kern.error console
- C. kern.warning /dev/console
- D. kern error console

Answer: C

QUESTION 254:

What syslog.conf facility represents the cron daemon?

- A. crond
- B. daemon
- C. cron
- D. crontab

Answer: C

QUESTION 255:

What syslog.conf facility represents kernel processes?

- A. user
- B. proc
- C. daemon
- D. kern

Answer: D

QUESTION 256:

What syslog.conf facility represents Unix to Unix copy?

- A. ucp
- B. copy
- C. uucp
- D. uuc

Answer: C

QUESTION 257:

What syslog.conf facility represents user authentication processes?

- A. auth
- B. proc
- C. user

D. login

Answer: A

QUESTION 258:

What syslog.conf facility represents user processes?

- A. auth
- B. proc
- C. user
- D. u

Answer: C

QUESTION 259:

What syslog.conf facility is used to create timestamps in log files?

- A. mark
- B. stamp
- C. time
- D. tstamp

Answer: A

QUESTION 260:

What is the name of the configuration file used by the syslog daemon?

- A. syslog.conf
- B. syslogd
- C. slog.conf
- D. system.conf

Answer: A

QUESTION 261:

What syslog.conf facility represents login processes?

- A. proc
- B. login
- C. user
- D. auth

Answer: D

QUESTION 262:

What syslog.conf facility represents the line printer?

- A. ptr
- B. linep
- C. lpr
- D. lprinter

Answer: C

QUESTION 263:

What daemon controls the syslog?

- A. syslog
- B. syslogd
- C. logd
- D. sys

Answer: B

QUESTION 264:

What syslog.conf facility represents mail processes?

- A. proc
- B. daemon
- C. mail
- D. smtp

Answer: C

QUESTION 265:

What syslog.conf facility represents user processes?

- A. auth
- B. proc
- C. user
- D. u

Answer: C

QUESTION 266:

What syslog.conf facility represents httpd processes?

- A. http
- B. daemon
- C. smtp
- D. proc

Answer: B

QUESTION 267:

Which of the following syslog.conf entries would cause kernel error messages to be sent to the system console?

- A. kern warning console
- B. kern.error console
- C. kern.warning /dev/console
- D. kern error console

Answer: C

QUESTION 268:

Which of the following syslog.conf entries would cause kernel warning messages to be sent to the system console?

- A. kern.console warning
- B. kern.warning /dev/console
- C. kern.warning.console
- D. kern warning console

Answer: B

QUESTION 269:

Which of the following syslog.conf entries would cause mail error messages to be sent to the system console?

- A. mail error console
- B. mail.err /dev/console
- C. mail. error console
- D. mail.err.console

Answer: B

QUESTION 270:

What syslog.conf facility represents Usenet news?

- A. usenet
- B. news
- C. uunet
- D. net

Answer: B

QUESTION 271:

You have just added the following line to your syslog.conf file:
lpr.info /dev/console. But, line printer messages are not being sent to the console.
What is most likely the problem?

- A. after modifying the syslog.conf file, the syslog daemon needs to be restarted.
- B. the entry is formatted incorrectly
- C. the syslog daemon reads its configuration information from the syslogd file

Answer: A

QUESTION 272:

What syslog.conf facility represents miscellaneous daemons?

- A. misc
- B. proc
- C. kern
- D. daemon

Answer: D

QUESTION 273:

What will the command "kill -HUP 1354" do?

- A. Kill the process 1354 destructively
- B. Kill the process 1354, allowing cleanup of memory
- C. Restart the process 1354, re-reading its config files
- D. Restart the process 1354, resetting its associated modem

Answer: C

QUESTION 274:

To keep a process running after you logged out, you start it with the command:

- A. nohup
- B. fg
- C. live
- D. sh

Answer: A

QUESTION 275:

What will the command "kill -HUP 1354" do?

- A. Kill the process 1354 destructively
- B. Kill the process 1354, allowing cleanup of memory
- C. Restart the process 1354, re-reading it's config files
- D. Restart the process 1354, resetting it's associated modem

Answer: C

QUESTION 276:

You have backgrounded a job called big Certkiller . When you type jobs and the command line it comes back with the following info.

```
jobs
[1] Running job1
[2] - Running big Certkiller
[3]+ Stopped job5
```

Type the command any switch(es) that would bring big Certkiller to the foreground.

Answer: fg %2

QUESTION 277:

What is the result of the command:

```
# kill 9 13459
```

- A. Kill PID 13459 with a signal 15
- B. Kill PID 13459 with a signal 1
- C. Kill PID 13459 with a signal 9
- D. None of the above

Answer: D

QUESTION 278:

When executing a command that produces output to the screen, you get an exit code of 0. Choose the best description of what has happened

- A. The program executed properly
- B. The program encountered an error
- C. The program requires more input
- D. The program has returned standard input
- E. The program terminated with a syntax error

Answer: A

QUESTION 279:

What will the command "kill -HUP 1354" do? Select all the apply

- A. The same as kill -9 1354
- B. The same as kill 15 1354
- C. The same as kill -15 1354
- D. The same as kill -SIGHUP 1354
- E. The same as kill -1 1354

Answer: D, E

QUESTION 280:

Which of the following commands sends an unclean and immediate kill signal to process ID (PID) 1555?

- A. Kill 1555
- B. Kill -1 1555
- C. Kill -2 1555
- D. Kill -9 1555
- E. Kill -15 1555

Answer: D

QUESTION 281:

When the kill command is given with only the PID number of the process to kill (as in 'kill 1234'), this corresponds to which type of kill signal?

- A. 2 (SIGINT)

- B. 1 (SIGHUP)
- C. 9 (SIGKILL)
- D. 3 (SIGQUIT)
- E. 15 (SIGTERM)

Answer: E

QUESTION 282:

What is the disadvantage of using the command kill -9 ?

- A. A core dump file will be created.
- B. It affects the entire process group.
- C. It makes excessive use of system resources.
- D. The action can be blocked by buggy or malicious processes.
- E. The affected process is unable to clean up before exiting.

Answer: E

QUESTION 283:

The process big Certkiller is out of control, and efforts to cleanly stop it fail.

You have executed a ps command and it displays the following info

PID TTY TIME CMD

3541 pts/0 10:10:10 big Certkiller

3558 pts/0 00:00:00 ps

What command should you type to absolutely stop the runaway process?

Answer: kill -9 3541

QUESTION 284:

What command or option will allow a program to continue operations after the invoking user has logged out of the system? Type just the answer.

Answer: nohup

QUESTION 285:

You wish to see the processes that are taking up CPU resources and their PID numbers. Type in the command that would do this including the options/arguments to cause a refresh every second.

Answer: top -d 1

Alternative correct answers: top -d1

QUESTION 286:

You wish to start a process and run it in the background. The binary executable is mybinary, and it's in your path. Type in the command in its simplest form to do this.

Answer: mybinary &

QUESTION 287:

You wish to know what the previous runlevel the system was in. Type in the command to show this.

Answer: runlevel

QUESTION 288:

Regardless of the version of Linux, which of the following help start and stop services on demand? Select two.

- A. xinetd
- B. inetd
- C. samba
- D. nfs
- E. amd

Answer: A, B

QUESTION 289:

Exhibit, output:

```
prompt> Certkiller app
[1]+ Stopped Certkiller app
prompt>
```

Which of the following commands will resume executing the stopped process while allowing the user to continue to type commands at the command prompt?

- A. bg Certkiller app
- B. continue Certkiller app
- C. exec Certkiller app
- D. fg Certkiller app
- E. Certkiller app &

Answer: A

Explanation: To run the program in the 'background.'

QUESTION 290:

What option can be used with the shutdown command to cancel a pending shutdown?

- A. shutdown -c
- B. shutdown -x
- C. shutdown -n
- D. shutdown -u

Answer: A

QUESTION 291:

You want to do a system shutdown, but you don't want the shutdown to occur immediately. You want the system to wait 60 seconds before doing the shutdown.

What option can be used with the shutdown command to wait 60 seconds before starting the shutdown?

- A. shutdown -t 60
- B. shutdown -w 1
- C. shutdown -c 60
- D. shutdown -t 1

Answer: A

QUESTION 292:

What option can be used with the shutdown command to send a warning message alerting users that the system will be shut down?

- A. shutdown -k
- B. shutdown -w
- C. shutdown -a
- D. shutdown -c

Answer: A

QUESTION 293:

What option can be used with the shutdown command to reboot the system?

- A. shutdown -r
- B. shutdown -y
- C. shutdown -c
- D. shutdown -b

Answer: A

QUESTION 294:

Which of the following syslog identifiers represents the highest priority?

- A. notice
- B. warning
- C. error
- D. critical

Answer: D

QUESTION 295:

Which of the following syslog identifiers represents the highest priority?

- A. alert
- B. error
- C. critical
- D. emerg

Answer: D

QUESTION 296:

Which of the following syslog identifiers represents the highest priority?

- A. info
- B. warning
- C. notice

Answer: B

QUESTION 297:

Which of the following syslog identifiers represents the highest priority?

- A. alert
- B. error
- C. critical
- D. emerg

Answer: D

QUESTION 298:

You run the following commands:

```
[user@prompt]$ nice -n 1 program1
```

```
[user@prompt]$ nice -n 5 program2
```

```
[user@prompt]$ nice -n 10 program3
```

Which of the program started will have the highest priority?

- A. program1
- B. program2
- C. program3

Answer: A

QUESTION 299:

You run following commands:

```
[user@prompt]$ nice -n 1 program1
```

```
[user@prompt]$ nice -n 5 program2
```

```
[user@prompt]$ nice -n 10 program3
```

Which of the program started will have the highest priority?

- A. program 1
- B. program 2
- C. program 3

Answer: A

QUESTION 300:

Which two programs will allow you to change the priority of a program already running? (Choose two)

- A. top
- B. nice
- C. niceit
- D. renice
- E. chnice

Answer: A, D

QUESTION 301:

Which command would you use to change the priority of a running process?

- A. renice
- B. nice
- C. kill
- D. pstree

E. killall

Answer: A

Explanation: Only top and renice can change the priority of a RUNNING process. Nice can change the priority BEFORE a process starts.

QUESTION 302:

To change the priority of a running process, you use the _____ command. (Specify command only with no options)

Answer: renice

QUESTION 303:

What program would you use to increase or decrease the priority of a command before it is executed?

Answer: nice

QUESTION 304:

What command could be used to get a hierarchical view of all the processes running on the system without requiring your to provide any switches or options?

Answer: top

QUESTION 305:

You have created a really long letter and after you are done you notice that you used the name "Bob" many times but you forgot to capitalize it in many instances. Which command would replace "bob" with "Bob" in all instances and generate a new letter for printing?

- A. sed '/bob/Bob' letter > newletter
- B. sed s/bob/Bob/ leter < newletter
- C. sed 's/bob/Bob/' letter> newletter
- D. sed 's/bob, Bob/' letter > newletter

Answer: C

QUESTION 306:

A user needs to search a file for lines that contain the asterisk (*) character. Which grep search command will accomplish this? Choose all that apply.

- A. grep * textfile

- B. `grep '*' textfile`
- C. `grep "*" textfile`
- D. `grep \<*\> textfile`
- E. `grep "*" textfile`

Answer: A, B, C

QUESTION 307:

You want to search the file `myfile` for all occurrences of string containing at least five characters, where character number 2 and 5 are 'a' and character number 3 is NOT 'b'. Which command would you use?

- A. `grep a*^b*a myfile`
- B. `grep .a[^b].a myfile`
- C. `grep .[a].*.[a] myfile`
- D. `grep .a*^b..a myfile`

Answer: B

QUESTION 308:

Which of the following commands would display the lines containing capital letters from the file `"turkey.txt"`?

- A. `cat turkey.txt|wc -|`
- B. `grep -n [A-Z] turkey.txt`
- C. `cat turkey.txt|wc -w [A-Z]`
- D. `grep -v [A-Z] < turkey.txt`
- E. `for [A-Z] in turkey.txt | count`

Answer: B

QUESTION 309:

You wish to list all files within your current working directory that are of the type ASCII, showing just a single line for each of those files. Type in the command string that would accomplish this.

Answer: `file * | grep ASCII`

Answer: `file * | grep -i ascii`

QUESTION 310:

You are writing text in `vi`. Now you want to save your changes and exit. Which two sequence of inputs will accomplish this? Select two.

- A. esc XX
- B. ctrl :w!
- C. esc zz
- D. esc :wq!
- E. ctrl XX
- F. esc ZZ

Answer: D, F

QUESTION 311:

You want to save vi changes to the file myfile with :w!, but vi complains it can not write to the file. Therefore, you want to check the write permissions on the file. To do this without leaving vi, you type:

- A. :!ls -l myfile
- B. :\ls -l myfile
- C. esc :ls -l myfile
- D. :?ls -l myfile

Answer: A

QUESTION 312:

You wish to match instances of the word 'Many' that are at the beginning of a line in the vi editor. What is the key combination to do this? Include the character to indicate a search in VI, and type the command as if you were in Command Mode in VI.

Answer: /^Many

QUESTION 313:

You wish to match the character string v2.1 v2.2 v2.3 through to v2.9 within VI. Type the search string to achieve this.

Answer: /v2\.[1-9]

QUESTION 314:

How can you print an entire file to standard output?

- A. printfile
- B. cat
- C. ls
- D. pr2stdout

Answer: A

QUESTION 315:

Select all the ways of exiting and saving a vi session.

- A. :wq
- B. :w
- C. :ZZ
- D. Shift ZZ
- E. :x
- F. :exit

Answer: A, D, E

QUESTION 316:

After starting vi to edit an existing text file, you press 'A' (shift +a). This will let you:

- A. Insert text at the end of the current file.
- B. Insert text at the end of the current sentence.
- C. Insert text after your current cursor position.
- D. Insert text at the end of the file.
- E. Insert text at the end of your current paragraph.

Answer: B

QUESTION 317:

Type in the VI command line that would open the file mytestfile.txt and line number it?

Answer: vi +"set number" mytestfile.txt

Answer: -vi mytestfile.txt +"set number"

Answer: --vi "+set number" mytestfile.txt

Answer: --vi mytestfile.txt "+set number"

QUESTION 318:

You wish to edit the file 'mytextfile' with the VI editor and search for the string ' Certkiller '. Type in the command line to open the file and highlight the first instance of Certkiller , (and any others).

Answer: vi +/ Certkiller mytextfile

Answer: vi mytextfile +/ Certkiller

QUESTION 319:

Using the VI editor you wish to paste the contents of the b buffer to the position of the cursor. What key combination would you type.

Answer: "bp

Answer: "Bp

QUESTION 320:

You wish to search for lines in VI that end with the string ' Certkiller ' Input the keystrokes to achive this, including the vi search character.

Answer: /Certkiller\$

QUESTION 321:

What is the most popular file system choice?

- A. ext2
- B. bsdf
- C. jfs
- D. ext3

Answer: A

Explanation: According to the technical information available at Linux From Scratch Ver 3.0, Once the partition is created, we have to create a new file system on that partition. The standard file system used these days is the ext2 file system, but the so-called journaling file systems are becoming increasingly popular too.

QUESTION 322:

What steps need to be performed, to make a new disk accessible to users? Select three.

- A. fdisk
- B. mkfs
- C. mount
- D. stat
- E. quotaon

Answer: A, B, C

QUESTION 323:

Which THREE of the following commands are used when setting up and accessing a new filesystem on the hard drive?

- A. fsck
- B. mkfs
- C. mount
- D. fdisk
- E. format

Answer: B, C D

QUESTION 324:

Type in the command line that will display the partitions on just the Secondary Slave drive in your system.

Answer: fdisk -l /dev/hdd

QUESTION 325:

Type the full command line to begin partitioning the second SCSI drive on your system using the most common disk partitioning tool.

Answer: fdisk /dev/sdb

QUESTION 326:

According to version 2.2 of the Filesystem Hierarchy Standard, which of the following is an optional directory in / (the root file system)? Select all that apply

- A. /boot
- B. /tmp
- C. /mnt
- D. /home
- E. /var

Answer: A, B, D, E

QUESTION 327:

You have written a custom tool on your local system. Following the File Hierarchy Standard (FHS), where should you install the binaries to be available to all users on your system?

Answer: /bin

QUESTION 328:

According to the Linux File System Hierarchy Standard, which one of the following directories is shareable and for static application files?

- A. /opt
- B. /var
- C. /var/log
- D. /etc
- E. /usr

Answer: E

QUESTION 329:

If you want your system to be FHS-compliant, you must ensure that the /usr/local directory contain (choose all that apply):

- A. bin
- B. lib
- C. man
- D. sbin

Answer: A,B,C,D

Explanation: According to the technical information available at Linux From Scratch Ver 3.0, The FHS stipulates that the /usr/local directory should contain the bin, games,include, lib, man, sbin, and share subdirectories. You can alter your /usr/local directory yourself if you want your system to be FHS-compliant.

QUESTION 330:

Which command (without options) would you use to display how much space is available on all partitions?

Answer: df

QUESTION 331:

Which command will show the number of free and used inodes for your system's mounted file systems?

- A. du -i
- B. df -i
- C. ls -iR /
- D. freeinodes

Answer: B

QUESTION 332:

What command with switches will display the disk utilization for all mounted file systems?

- A. df
- B. vmstat
- C. du
- D. top
- E. free

Answer: A

QUESTION 333:

What command with options will show the currently mounted filesystems usage in kilobytes?

- A. df -k
- B. df -h
- C. du -k
- D. du -h
- E. du -s

Answer: A

QUESTION 334:

Which utility on a system will report any excessive file system space remaining with very few inodes still available?

- A. fsck
- B. debugfs
- C. sync
- D. showfiles
- E. softlinks

Answer: A

QUESTION 335:

You are preparing to mount a new ext3 partition.

What command would you use to check the filesystem for errors before mounting it? (Include only the command without path, options, or arguments)

Answer: e2fsck

QUESTION 336:

What utility is used to verify the integrity of a filesystem? (Do not specify path or parameters)

Answer: fsck

QUESTION 337:

What is the simplest and most direct command to check the integrity of an Ext2 file system?

- A. fsck.ext2
- B. fsck -t ext2
- C. e2fsck
- D. ext2fsck
- E. None of the above

Answer: C

QUESTION 338:

You are preparing to mount a new ext3 partition that is the second partition on your first IDE drive. How can you check the integrity of the filesystem first without having to answer "y" to a bunch of questions?

- A. e3fsck -y /dev/hda2
- B. e2fsck -y /dev/hda2
- C. e3fsck -r /dev/hda2
- D. e2fsck -r /dev/hda2

Answer: B

QUESTION 339:

What option can be used with the shutdown command to skip fsck on reboot?

- A. shutdown -f
- B. shutdown -o
- C. shutdown -r
- D. shutdown -s

Answer: A

QUESTION 340:

What command should you use to create an ext2 file system:

Answer: mke2fs

Explanation: According to the technical information available at Linux From Scratch Ver 3.0, To create an ext2 file system, use the mke2fs command. The LFS partition is used as the only option to the command and the file system is created.

```
mke2fs /dev/xxx
```

Replace "xxx" by the partition's designation (like hda11).

QUESTION 341:

You installed a new experimental kernel and found that one of your ext2 partitions no longer functions. You tried unsuccessfully to repair it.

What program can you use to interactively debug the filesystem?

- A. e2fsck
- B. tune2fs
- C. debugfs
- D. tine2fs
- E. dumpe2fs

Answer: C

QUESTION 342:

You are experiencing errors and strange occurrences on an Ext2 filesystem, and want to debug it's operations. Type just the command that will most directly accomplish this.

Answer: debugfs

QUESTION 343:

When the system is mounted, all file systems in the /etc/fstab are mounted, except those with what in the option column?

- A. nomount
- B. noauto
- C. noatime
- D. nohup

Answer: B

QUESTION 344:

What options will allow a normal user to mount and then unmount a file system without needing assistance from the root user?

- A. user and users in the /etc/fstab
- B. user and users in the /etc/default/
- C. user and users in the /etc/vfstab
- D. user and users in the /etc/mnttab
- E. usrquota and grpquota in the /etc/fstab

Answer: A

QUESTION 345:

What two things does the /etc/fstab file contain references to?

- A. File Systems
- B. Mount Points
- C. User Options
- D. File System Defaults
- E. File System Permissions

Answer: A, B

QUESTION 346:

Which is a valid /etc/fstab entry

- A. fs1:/proc /mnt/fs1 nfs defaults 9 9
- B. /mnt/fs1 fs1:/proc nfs defaults 0 0
- C. fs1:/home /mnt/fs1 nfs defaults 0 0
- D. /mnt/home fs1:/home nfs defaults 0 0
- E. /home:fs1 /mnt/fs1 nfs defaults 0 0

Answer: C

QUESTION 347:

What type of information is found in the /etc/fstabfile?

- A. Information about mounted filesystems.
- B. Information about hard disks such as cylinders and heads.
- C. Information about filesystems and mount points.
- D. Information about filesystems types such as super block offset
- E. Information about the consistency of each currently mounted filesystem.

Answer: C

QUESTION 348:

Which entry in /etc/fstab will allow any user to mount and unmount /dev/cdrom?

- A. /dev/cdrom /cd ro,noauto,unhide, all iso9660 0 0
- B. /dev/cdrom /cd iso9660 ro,noauto,nonroot 0 0
- C. /dev/cdrom /cd iso9660 ro,user,noauto,unhide 0 0
- D. /dev/cdrom /cd iso9669 ro,user,noauto,unhide 0 0
- E. /dev/cdrom /cd iso9660 ro,noauto,defaults 0 0

Answer: C

QUESTION 349:

What is the proper option to put in /etc/fstab to enable group quotas for a particular partition?

- A. groupquota
- B. grpquota
- C. groupquotas
- D. grpquotas

Answer: B

QUESTION 350:

What is the proper option to put in /etc/fstab to enable user quotas for particular partition?

- A. usrquata
- B. userquota
- C. userquotas
- D. usrquotas

Answer: A

QUESTION 351:

What command (with parameter[s]) would you type to mount all partitions specified in the /etc/fstab?

Answer: mount -a

QUESTION 352:

You have just added a CD-ROM drive (/dev/hdd) to your system and have added it to your fstab.

Typically you can use which of the following commands to mount media in that drive to /mnt/cdrom?

- A. mount/dev/cdrom/mnt/cdrom
- B. mount/dev/cdrom
- C. mount -t cdrom/dev/cdrom/mnt/cdrom
- D. mount/mnt/cdrom
- E. automount/mnt/hdd/mnt/cdrom

Answer: D

QUESTION 353:

You wish to copy the entire contents of the /dev/hda1 to /dev/hdb1 block by block. Type in the simplest command that would do this?

Answer: dd if=/dev/hda1 of=/dev/hdb1

QUESTION 354:

You have a floppy image called boot.img in your current working directory and wish to transfer this image to a floppy device /dev/fd0. Type in the simplest command that would do this?

Answer: dd if=boot.img of=/dev/fd0

QUESTION 355:

You are building a server that will have many hardware and operating system upgrades. The server is the file server for all users on your 100 user network. Which directory should have its own mountpoint and/or hard drive?

Answer: /home

QUESTION 356:

How can you generate a report on the disk usage and quotas for all filesystem which CK defined in .etc/mtab to be read-write with quotas?

- A. quotarep -a
- B. repquota /dev/hd*
- C. repquota -a
- D. quotarep /dev/hd*

Answer: C

QUESTION 357:

What must be added to the following to enable group quotas for /usr?
/dev/hda2 /usr ext2 defaults 1 1

Answer: grpquota

QUESTION 358:

Two directories require different quota for file system usage. The /var/mail directory needs a 20MB quota, and the /home directories require a 40MB quota. What must be true about these directories?

- A. They must exist on Ext3 partitions
- B. They must be on different drives
- C. They must be on different partitions
- D. They must be mounted by the root user

Answer: C

QUESTION 359:

You want to configure user quotas for the /home filesystem. You've installed the quota packages. What else needs to be done to enable the filesystem's quotas? Choose all that apply.

- A. add usrquota to the /etc/fstab options column
- B. run the quotaon command
- C. run the quotacheck -avug command
- D. edit the user's quota settings
- E. remount the file system

Answer: A, B, C, D, E

QUESTION 360:

Where is the quota information for users of volume /home stored?

- A. /etc/sysconfig/quota/quota.home.user
- B. /etc/quota/quota.home.user
- C. /home/quota.home.user
- D. /home/quota.user
- E. /home/quota.home.group

Answer: D

QUESTION 361:

How can you generate a report on disk usage and quotas for all filesystems which are defined in /etc/mtab to be read-write with quotas.

- A. quotarep -a
- B. repquota /dev/hd*
- C. repquota -a
- D. quotarep /dev/hd*

Answer: C

QUESTION 362:

You want to limit the amount of disk space ordinary users can have to 5MB per user in / var / spool / mail and 10MB per user in / home, using quota. What steps do you need to take when partitioning the hard drive?

- A. Make a partition for / var / spool / mail and another one for / home.
- B. Use qfdisk instead of fdisk to create the partitions and activate quotas.
- C. No special steps are required. /var/ spool/ mail and / home can be part of the / partition.
- D. Make one partition for both /home, then later on add a symlink for / var / spool / mail that points to that partition.
- E. Use fdisk to make partition for / var / spool / mail and / home, then use the "u" option to tum on per-user quotas.

Answer: A

QUESTION 363:

What file must be put in the root of a filesystem for quotas to be enabled for users?

Answer: quota.user

Answer: aquota.user

QUESTION 364:

You are the root user of a system, and need to gather quota information about all users on the system. Type the command along with any options and arguments to accomplish this.

Answer: repquota -a

QUESTION 365:

You are building that what will be a busy email and web server. You have plenty of space on a hardware RAID device. You are concerned about heavy log activity causing problems. Which directory should you give its own partition?

Answer: /var

QUESTION 366:

To prevent users from being able to fill up the / partition, the _____ directory should be on a separate partition if possible because it is world writeable.

Answer: /var

Explanation: To prevent denial of service attacks

QUESTION 367:

On a standard Linux system as a normal user, what umask value will cause your file to be created with the following permissions ?

drwxr-x--- 2 username group 512 Mar 6 11:16 dir1

-rw-r----- 1 username group 0 Mar 6 11:16 file1

Answer: 027

Answer: 0027

QUESTION 368:

A user named certkiller needs to execute a system script file. What rights do the user need to execute a script file?

- A. Read, Write and Execute for all
- B. Execute only for user
- C. Read-only for user, Execute for group
- D. Read and Execute in the same permission set

Answer: D

QUESTION 369:

Which of the following are required in the /etc/passwd file when creating a user account? (Choose all that apply)

- A. login name
- B. userid
- C. default group
- D. password age
- E. minimum password length

Answer: A, B, C

QUESTION 370:

Your umask is set to 002. If you create a new file, what will the permission of the new file be?

- A. -rw-rw-r--
- B. rwxrwx-w-
- C. -----w-
- D. rwxrwxr-x

Answer: A

QUESTION 371:

Before you start creating directories on a newly created file system, what should you do?

- A. check the base system's umask setting
- B. check the base system's CMOS setting
- C. check the base system's init stage setting
- D. check the base system's process ID setting

Answer: A

Explanation: According to the technical information available at Linux From Scratch Ver 3.0, Before we start creating directories, we need to check the base system's umask setting. To do this, we run umask. The result should be 022. If it isn't, then run the following command to ensure that the directories will be created with the correct permissions:

```
umask 022
```

QUESTION 372:

Type the command and argument that would cause the default permissions on newly created files to be set as:

```
rw- r-- r--
```

Answer: umask 022

Answer: umask 0022

QUESTION 373:

If you set the umask to 022, by default what permissions will your files have?

- A. 0220
- B. 0557
- C. 0644
- D. 0755

Answer: C

QUESTION 374:

A base Linux system's umask setting should be default to:

- A. 022
- B. 066
- C. 077
- D. 211

Answer: A

Explanation: According to the technical information available at Linux From Scratch Ver 3.0, Before we start creating directories, we need to check the base system's umask setting. To do this, we run umask. The result should be 022. If it isn't, then run the following command to ensure that the directories will be created with the correct permissions:

```
umask 022
```

QUESTION 375:

In which file are you likely to find the global setting for the umask and ulimit?

- A. /etc/profile
- B. /etc/bashrc
- C. /etc/bash_profile
- D. ~/.bashrc
- E. ~/.bash_profile

Answer: A

QUESTION 376:

What is the purpose of setting the SUID? Choose all that apply.

- A. Allows any user to run a executable program with the permissions of the owner of the program
- B. Allows any user to run a program with the permissions of the group of the program
- C. Everyone can edit the files that are created but only root and owner can delete them.
- D. To keep programs that are needed constantly in non-swappable RAM
- E. To cause a program opened in one X virtual pane to follow the user's focus to other panes

Answer: A, D

QUESTION 377:

What TWO permissions must a user have in order to run a shell script?

- A. read
- B. write
- C. execute
- D. browse on the directory
- E. users cannot run shell scripts

Answer: A, C

QUESTION 378:

When you create a new directory, you see the permissions are set to 600. What umask value would cause this to happen?

- A. 177
- B. 066
- C. 244
- D. 155
- E. 333

Answer: A

QUESTION 379:

When you create a new file, the permissions show as 654. What value is the umask likely set at?

- A. 012
- B. 002
- C. 123
- D. 022

Answer: A

QUESTION 380:

What are the default permissions for the Red Hat /etc/passwd file?

- A. 644
- B. 640
- C. 400
- D. 641
- E. 440

Answer: A

QUESTION 381:

What are the default permissions on the Red Hat /etc/shadow file?

- A. 644
- B. 600
- C. 400
- D. 444
- E. 640

Answer: E

Explanation: The default permission for the /etc/shadow file (Red Hat or Suse) is 640.

QUESTION 382:

You work as network administrator at Certkiller .com. A user moved to another department within Certkiller .com. Which command would you use to change the group ownership of her files and directories? (fill in the blank - only the command without arguments or options):

Answer: chown

QUESTION 383:

You need to alter the permissions on the directory /home/mrbill and all it's contents to match the following permissions.

drwxr--r--

Which of these commands with options and arguments will accomplish this? Choose two.

- A. chmod 0744 /home/mrbill -R
- B. chmod 744 /home/mrbill/*
- C. chmod -R u=rwx,g=r,o=r /home/mrbill
- D. chmod u+rwx,g+r,o+r /home/mrbill

Answer: A, C

QUESTION 384:

How can you set the SGID on a file called Certkiller examiner?

- A. chmod u+s Certkiller examiner
- B. chmod g+s Certkiller examiner
- C. chmod o+s Certkiller examiner
- D. chmod u+t Certkiller examiner

Answer: B

QUESTION 385:

Which of the following commands makes /bin/foo executable by everyone but only writable by its owner?

- A. `chmod 557 /bin/foo`
- B. `chmod o +rwx, a+rx /bin/foo`
- C. `chown 557 /bin/foo`
- D. `chmod 755 /bin/foo`

Answer: D

QUESTION 386:

You have the following file:

```
-rwxrwxr-x 1 foo root 0 Feb 23 07:48/bin/foo
```

Which of the following commands will change the owner of the file /bin/foofrom the foo userto the bar user without affecting group ownership?

- A. `chown /bin/foo bar`
- B. `chown bar /bin/foo`
- C. `chown bar.foo /bin/foo`
- D. `chown.foo.bar /bin/foo`

Answer: B

QUESTION 387:

What would the following line accomplish if run as root?

```
chown -R bert /home/bert/*
```

- A. Nothing, this command is invalid.
- B. It would rovoke bert's ownership of all files in /home/bert to bert.
- C. It would change user ownership of all files in /home/bert to bert.
- D. It would set the group ownership of the directory /home/bert to bert
- E. It would set ownership of all files and subdirectories in /home/bert to bert

Answer: E

QUESTION 388:

Which shown command will change the ownership to ' Certkiller ' and the group to file 'list'?

- A. `chown Certkiller /users list`

- B. `chown -u Certkiller -g users list`
- C. `chown Certkiller .users list`
- D. `chown -- user Certkiller - group users list`

Answer: C

QUESTION 389:

A file named " Certkiller 1" is set with the following ownership:

Owner = foo

Group = bar

You want to change this file's ownership to be totally owned by foobar, what command string will accomplish this?

Answer: `chown foo.bar Certkiller 1`

Answer: `chown foo:bar Certkiller 1`

QUESTION 390:

If a file is symlinked to with a link name of file2, and that file is deleted, what happens to the contents of the file?

- A. The contents still exist, and can be reached with file2
- B. The contents are gone, leaving file2 orphaned
- C. The file can be retrieved with `undelete -f file2`
- D. File2 is another name to the original, and the contents are still there

Answer: B

QUESTION 391:

You need to create a symbolic link in the current user's home directory named Certkiller to the file /data/foobar. Choose the command that will accomplish this.

- A. `link . Certkiller /data/foobar`
- B. `ln /data/foobar $HOME/ Certkiller`
- C. `ln -s /data/foobar ~/ Certkiller`
- D. `file --link ./ Certkiller /data/foobar`
- E. None of the above

Answer: C

QUESTION 392:

What does the command "`ln Certkiller`" typically do?

- A. It will create a symbolic link from test to bill.
- B. It will create a hard link from bill to test.
- C. It will create a symbolic link from bill to test.
- D. It will create a copy of the file test in bill.

Answer: B

QUESTION 393:

What would cause a system to report having excess free space but very few available inodes?

- A. Too many hard links are in use on /home.
- B. A user has created many very small files.
- C. fsck hasn't been run on /home in a while.
- D. Too many symbolic links are in use on /home.
- E. The disk needs to be synced before running df.

Answer: D

QUESTION 394:

You want to find the full path of a certain command. How would you do this?

- A. By using the 'where' command
- B. By using the 'path' command
- C. By using the 'which' command

Answer: C

QUESTION 395:

You wish to find out the full path of the binary executable "cmd1". Type just the command that will show the first instance of the command.

Answer: which cmd1

QUESTION 396:

To locate all files that are less than 3 days old, you use the _____ -mtime -3command.

Answer: find

QUESTION 397:

What command can find the program file "bar" and it's associated man pages and any existing source

files, but not return all files that have "bar" in the command name or path?

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

Answer: A

QUESTION 398:

What file should you edit to exclude directories from being indexed by the slocate command?

- A. /etc/slocatedb.conf
- B. /etc/default/slocate
- C. /etc/slocate.conf
- D. /etc/updatedb.conf
- E. /etc/sysconfig/updatedb.conf

Answer: D

QUESTION 399:

You want to make sure certain directories are excluded when you update your locate database file. Where would you typically store this configuration?

- A. /etc/locatedb.conf
- B. /etc/slocatedb.conf
- C. /etc/searchdb.conf
- D. /etc/updatedb.conf

Answer: D

QUESTION 400:

Which of the following programs can be used to find the foo program in the PATH and associated man pages, but NOT list every file containing foo in the system?

- A. which
- B. search
- C. slocate
- D. where
- E. whereis

Answer: E

QUESTION 401:

Which one of the following programs will only find files that are in your PATH?

- A. locate
- B. slocate
- C. which
- D. find

Answer: D

Explanation: . The locate command looks in a pre-built database for matches, like an index. This database is updated on a schedule, and is sometimes outdated.

B. I have no idea if the slocate command exists, and if it does, I don't know what it does. You'd have to look that one up.

C. The which command parses every directory in the PATH environment variable, returning the first match found. This is useful if you want to know which file gets executed when you type a command, or if you need to know the full path of a file for some reason. For example, security could be compromised by someone that puts an often used executable in a directory that gets looked at earlier in your PATH statement. Thus, every time you think you're executing a program, you're actually executing a possibly malicious program. There is an option to make the which command return every found result, but it will remain restricted to the PATH.

D. Finally, the find command just does a complete search. It accepts the starting directory as an argument, and just looks at every file and directory it finds. It takes a long time, but it's guaranteed to find anything that the user has read permission to.

QUESTION 402:

Which of the following programs can be used to find the foo program in the PATH and associated man pages, but not list every file containing foo on the system?

- A. which
- B. search
- C. slocate
- D. where
- E. whereis

Answer: E

QUESTION 403:

After installing and configuring Xfree86, you notice that when you start X, the display is not centered. What program can you run to find a better modeline setting?

- A. XF86Setup
- B. xf86config
- C. xvidtune
- D. xvideoagent

Answer: C

QUESTION 404:

The X program _____ is often used to make minor keyboard adjustments, like proper Backspace/Delete mapping.

- A. xkbdmap
- B. kbdmap
- C. xmodmap
- D. modmap

Answer: B

QUESTION 405:

What is the name of the X configuration tool that runs in graphical text mode?

Answer: Xconfigurator

QUESTION 406:

What entry in the X configuration file specifies where the fonts are located for the X system?

- A. Fonts
- B. Files
- C. Fontpath
- D. Devices

Answer: C

QUESTION 407:

With Xfree86 3.3.5, what is the name of the default font server?

- A. xfs
- B. xfserv
- C. fonts
- D. xfstt
- E. fserv

Answer: A

QUESTION 408:

What is the name of the default XFree86 Font Server?

- A. xfs
- B. xfserver
- C. xfree86fs
- D. Xfs
- E. xfontserver

Answer: A

QUESTION 409:

What must you type immediately after adding new fonts to an X window system, to make them available to the system?

Answer: mkfontdir

QUESTION 410:

What is the entry in the XF86Config file that specifies the fonts are on the local machine? Choose Two.

- A. unix/:-1
- B. unix/:7100
- C. tcp/:45
- D. udp/:80
- E. font/:-1

Answer: A, B

QUESTION 411:

What section of the XF86Config file contains the entry to set the path for fonts used?

- A. Fonts
- B. Files
- C. Ttype
- D. ATM
- E. FontPath

Answer: B

QUESTION 412:

The screensize is already configured in X on a system. When started, the screen defaults to a certain size. The user wants to change it, what file should the user edit manually to accomplish this?

- A. /etc/xf86config
- B. /usr/bin/xf68setup
- C. /etc/X11/XF86Config
- D. /etc/screensize

Answer: C

QUESTION 413:

Which of the following is true about the XF86Config file. Select all that apply?

- A. Can set the screen resolution settings
- B. Can set the bits per pixel (colour depth) setting
- C. Includes keyboard and mouse selections
- D. Includes information on which window manager to run
- E. Contains information on where fonts are located

Answer: A, B, C, E

QUESTION 414:

In XF86Config which section is concerned with fonts?

- A. the Fonts section
- B. The Files section
- C. The xfsCodes section
- D. The Graphics section
- E. The modeline section

Answer: B

QUESTION 415:

You are the system administrator for a small consulting company. One of your consultants recently installed Linux on a system in order to prepare for a project. What he performed the installation, he chose several different screen sizes (604x480, 800x600, 1024x768). However, when he starts the system, it always goes into 640x480 first, and he must manually toggle to get to the higher resolution. He would like to change the setup so that he enters X at the higher resolution first.

If you were to change this setting manually, which file would you edit?

- A. xinit

- B. xinitrc
- C. XF86Setup
- D. XF86Setup
- E. XF86Config

Answer: E

QUESTION 416:

You are the system administrator for a consulting firm where several people use Linux as their desktop operating system. One of your users has installed a commercial publishing program that works under X on a variety of UNIX and Linux platforms. The user made a series of configuration changes regarding the initial window size, location and color.

Now, he is having difficulty undoing these changes and is asking for your help. In which file would you think you would most likely find the configuration settings you are seeking to change?

- A. ~/.xinitrc
- B. ~/.xconfig
- C. ~/.Xdefaults
- D. ~/.XF86Config
- E. /etc/X11/XF86Config

Answer: E

QUESTION 417:

You are having problems with a particular font and you want to see if its directory is included in XF86Config. Which section contains this information?

- A. Paths
- B. Fonts
- C. Files
- D. Graphics

Answer: B

Explanation: /usr/x11r6/lib/fonts

QUESTION 418:

What is the name of the X configuration tool that runs in text mode from the command line, and has a large number of questions?

Answer: xf86config

QUESTION 419:

What is the name of the X configuration tool that runs in a simplified X-like environment?

Answer: XF86Setup

QUESTION 420:

Which of the following lines from /etc/X11/XF86Config indicates what fonts can be found on a font server?

- A. FontPath= server
- B. Fonts "unix/:7100"
- C. FontPath "unix/:7100"
- D. Fonts= server
- E. Fontserver = "servername"

Answer: C

QUESTION 421:

Type in the command that would start an application to check for colour depth of an X window.

Answer: xwininfo

QUESTION 422:

What command will tell you the color depth of your display?

- A. xwininfo
- B. xvidtune
- C. xcd
- D. xcdepth
- E. xvdepth

Answer: A

QUESTION 423:

Which of the following best describes the order in which X Window files are executed or read ?

- A. startx -> xinit -> xinitrc -> Xclients
- B. xinit -> startx -> Xclients -> xinitrc
- C. xinitrc -> Xclients -> startx -> xinit
- D. Xclients -> startx -> xinitrc -> xinit

Answer: A

QUESTION 424:

Your system boots into a typical runlevel 3, so users generally use startx to get a graphical shell. What file can users modify in their home directory to determine the window manager started by startx?

- A. .xinitrc
- B. .Xclients
- C. .wmrc
- D. .desktop

Answer: B

QUESTION 425:

Which series of programs and scripts most closely defines a standard X Window System startup process as executed from a character-mode console?

- A. kde -> kdm -> Xdefaults -> Xclients
- B. startx -> Xclients -> Xsession -> fvwm
- C. startx -> xinitrc -> Xclients -> xinit
- D. startx -> xinit -> xinitrc -> Xclients
- E. xinit -> Xsession -> startx -> Xclients

Answer: D

QUESTION 426:

What command line tool can be used to display the window attributes of an X window. Type in the command line without flags or path.

Answer: xwininfo

QUESTION 427:

You have booted a desktop Linux system and logged in. When you type "startx", a mouse error occurs almost immediately. What's the most likely cause of the problem?

- A. a reboot is needed
- B. the gpm malfunctioned and must be reloaded
- C. the wrong mouse protocol is selected
- D. the wrong mouse mode is set
- E. a modeline is incorrectly set

Answer: C

QUESTION 428:

What command can be used to cause changes to the inittab file to take effect without a system reboot?

- A. init q
- B. init r
- C. inittab r
- D. inittab q

Answer: A

QUESTION 429:

Type in the full path and name of the file that you would edit to change the default startup runlevel of the system so that it starts an X session on bootup instead of a text mode session.

Answer: /etc/inittab

QUESTION 430:

You want to have the process /etc/myprocess to run when the system enters run level 2. You want the system to wait until the process completes. Which of the following inittab entries would accomplish this?

- A. 7:2:wait:/etc/myprocess
- B. 2:7:wait:/etc/myprocess
- C. wait:2:7:/etc/myprocess
- D. wait:7:2:/etc/myprocess

Answer: A

QUESTION 431:

You want to have the process /etc/myprocess run when the system enters run level 3. Which of the following inittab entries would accomplish this?

- A. 5:3:once:/etc/myprocess
- B. 3:4:once:/etc/myprocess
- C. once:3:4:/etc/myprocess
- D. once:5:3:/etc/myprocess

Answer: A

QUESTION 432:

Do changes to the inittab file require a reboot in order to take effect?

- A. No
- B. Yes

Answer: A

QUESTION 433:

You have just set up the X Display Manager.

What file is typically used as the primary configuration file for XDM?

- A. xdm.config
- B. XF86Config
- C. xdm.conf
- D. Xsetup
- E. xdm-config

Answer: E

QUESTION 434:

What file is used to configure the XDM daemon?

- A. xdm-config
- B. xdm.conf
- C. xdmcfg
- D. xdaemon.conf
- E. None of the above

Answer: A

QUESTION 435:

You have just set up the KDE Display Manager as your default display manager. What file should you edit to change the default greeting?

- A. prefdm
- B. XF86config
- C. Kdmrc
- D. Kdm.conf

Answer: C

QUESTION 436:

What file does init processes use as its control file?

- A. /etc/inittab
- B. /etc/proc
- C. /etc/init
- D. /etc/initproc

Answer: A

QUESTION 437:

What line in the /etc/inittab file sets the runlevel a machine will enter when a graphical login is desired?

- A. id:5:initdefault
- B. si:5:sysinit:/etc/rc.d/rc.sysinit
- C. x:5:respawn:/etc/X11/prefdm -nodaemon
- D. d) # 5 - X11

Answer: A

QUESTION 438:

You have just set up the Gnome Display Manager as your default display manager. What file should you edit to change the default greeting for it?

- A. /etc/X11/prefdm
- B. /etc/X11/XF86Config
- C. /etc/X11/gdm.conf
- D. /etc/X11/gdm/lnit/Default

Answer: D

QUESTION 439:

You have just set up the X Display Manager as your default display manager. What file should you edit to change the default background for it?

- A. /etc/X11/xdm/Xsetup
- B. /etc/X11/prefdm
- C. /etc/X11/XF86Config
- D. /etc/X11/xdm.conf

Answer: A

QUESTION 440:

You are the administrator for all desktop systems at your company. You do not have a desktop standard and the users are free to use any window manager they choose.

Which of the following methods would be easiest to add a menu item to all users' main menu?

- A. There is no easy solution to this problem.
- B. Use rsync to synchronize all menus with a central server.
- C. Write a script that adds the menu item and have users run it.
- D. Add the changes to the /etc/default/main-menu configuration file.
- E. Use your package manager to upgrade all the packages at once.

Answer: C

QUESTION 441:

What is the configuration file for the xscreensaver?

- A. xscreensaver.conf
- B. .xscreensaver
- C. xsaver.conf
- D. xdm-config

Answer: B

QUESTION 442:

What switch will set the foreground color in X?

- A. fg
- B. foreground
- C. xfg
- D. fregnd
- E. None of the above

Answer: A

QUESTION 443:

Which of these commands will list the shared libraries used by the KDE application kpanel?

- A. ldd kpanel
- B. /usr/lib kpanel
- C. kdd / opt/ kde/ bin/kpanel
- D. ldd / opt/ kde/ bin/kpanel
- E. ldconfig / opt/ kde/ bin/ kpanel

Answer: D

QUESTION 444:

Which of the following are windows managers? Choose all that apply.

- A. Xfce
- B. Afterstep
- C. IceWM
- D. FVWM
- E. BlackBox

Answer: A, B, C, D, E

QUESTION 445:

Which of these commands will list the shared libraries used by the KDE application kpanel?

- A. ldd kpanel
- B. /usr/lib kpanel
- C. kdd /opt/kde/bin/kpanel
- D. ldd /opt/kde/bin/kpanel
- E. ldconfig /opt/kde/bin/kpanel

Answer: A

QUESTION 446:

What environment variable will remote X application check to see which X server it should send output to?

Answer: DISPLAY

QUESTION 447:

What environment variable is used to remotely display another machines X session on yours?

- A. DISPLAY
- B. XSESSION
- C. SCREEN
- D. TTY
- E. None of the above

Answer: A

QUESTION 448:

You are running X in networked environment. You want to allow anyone on your network to display their X applications on your desktop. What command can you use to disable all access control for X?

Answer: xhost -

QUESTION 449:

You wish to enable remote X access for the hosts: Host1, Host2 and Host3. Type in the command and any needed arguments to do this.

Answer: xhost +Host1 Host2 Host3

QUESTION 450:

You are the system administrator for an X server, and experience attempts to initiate an unauthorized session from host21. What command with options and arguments would deny access only to host21 for X sessions?

Answer: xhost -host21

QUESTION 451:

What is the function of the .Xdefaults file?

- A. Provides the defaults for new users X programs
- B. A default user X profile, used as a template
- C. User customizations for programs
- D. KDE default user configuration file

Answer: C

QUESTION 452:

You suspect that a new ethernet card might be conflicting with another device. Which file should you check within the /proc tree to learn which IRQs are being used by which kernel drives?

Answer: /proc/interrupts

Explanation:

The Linux /proc Directory is a Virtual Filesystem provided by linux kernel. /proc contains files and directories that let system administrators and programmers access system information.

The file /proc/interrupts file contains information on interrupts and IRQs. First Ethernet card device name is eth0, second Ethernet card device name is eth1 ..., to

identify that dev will conflict or not , see the contains of file. Already eth0 is appeared or not ?

Here is the output of /proc/interrupts

CPU0

0: 380893 XT-PIC timer

1: 843 XT-PIC i8042

2: 0 XT-PIC cascade

5: 0 XT-PIC uhci_hcd

8: 1 XT-PIC rtc

11: 48 XT-PIC Intel 82801AA-ICH, eth0

14: 6086 XT-PIC ide0

NMI: 0

ERR: 0

For a multi-processor machine, this _le may look slightly different:

CPU0 CPU1

0: 1366814704 0 XT-PIC timer

1: 128 340 IO-APIC-edge keyboard

2: 0 0 XT-PIC cascade

8: 0 1 IO-APIC-edge rtc

12: 5323 5793 IO-APIC-edge PS/2 Mouse

13: 1 0 XT-PIC fpu

16: 11184294 15940594 IO-APIC-level Intel EtherExpress Pro

10/100 Ethernet

20: 8450043 11120093 IO-APIC-level megaraid

30: 10432 10722 IO-APIC-level aic7xxx

31: 23 22 IO-APIC-level aic7xxx

NMI: 0

ERR: 0

Appeared Number of CPU, Number of Ethernet card.

QUESTION 453:

While troubleshooting a boot issue you wish to know exactly what parameters are passed to the kernel from your bootloader. One way to do this is to execute `cat /proc/_____`

Answer: `/proc/cmdline`

Explanation The Linux `/proc` Directory is a Virtual Filesystem provided by linux kernel. `/proc` contains files and directories that let system administrators and programmers access system information.

If you misconfigured the bootloader, you can't load the Linux. We have different Boot loader like lilo, grub etc. If you try to load the Linux using misconfigured bootloader you will get kernel panic, no init found or Kernel Panic - Not Syncing: Attempt to kill init etc Error. At this time you can boot the system by passing different parameters from the bootloader. If you are using LILO bootloader press `ctrl+x`, If you are using grub, press `a` or `e` and edit or pass the different parameter. Before passing kernel parameter, you should know what to pass, the file

/proc/cmdline contains the parameter can pass from bootloader.

For Grub

Contains of /proc/cmdline

ro root=LABEL=/ rhgb quiet

or

/proc/cmdline

ro root=/dev/hda2

This file shows the parameters passed to the kernel at the time it is started. This tells us that the kernel is mounted read-only (signified by (ro)) off of the second partition on the first IDE device (/dev/hda2).

For LILO BOOT_IMAGE=linux ro BOOT_FILE=/boot/vmlinuz-2.6.9-5.EL rhgb quiet

root=LABEL=/1

QUESTION 454:

How many SCSI ids for peripherals can SCSI-1 support?

- A. 5
- B. 6
- C. 7
- D. 8

Answer: C

Explanation:

SCSI-1 support total 7 peripherals. There are several different types of SCSI devices. The original SCSI specification is commonly referred to as SCSI-1. The newer specification, SCSI-2, offers increased speed and performance, as well as new commands. Fast SCSI increases throughput to more than 10MB per second. Fast-Wide SCSI provides a wider data path and throughput of up to 40MB per second and up to 15 devices. There there are Ultra-SCSI and Ultra-Wide-SCSI

QUESTION 455:

The command cat /proc/dma will show you what?

- A. Whether DMA is enabled
- B. Which DMA channels are in use
- C. Which DMA mode is in use
- D. General information about DMA on the machine

Answer: A

Explanation

/proc/dma

This file contains a list of the registered ISA direct memory access (DMA) channels in use. A sample

/proc/dma files looks like the following:

4: cascade

It shows whether DMA is enabled or not.

QUESTION 456:

Which of the following device files would represent a USB disk?

- A. /dev/sda
- B. /dev/scsia
- C. /dev/hda
- D. /dev/sd0
- E. /dev/scsi0

Answer: A

Explanation: Linux Treat the USB disk as a SCSI. So, It's device name is sda, sdb....

To use USB Disk we should mount : mount /dev/sda /mnt/usb

Similarly IDE Harddisk will represent by :

Primary Master : /dev/hda

Primary Slave : /dev/hdb

Secondary Master : /dev/hdc

Secondary Slave : /dev/hdd

Floppy Disk represent by : /dev/fd0, fd1,...

QUESTION 457:

You are formatting a single hard disk for a Linux install. What is the maximum number of primary partitions you can create?

- A. 0
- B. 1
- C. 2
- D. 3
- E. 4
- F. 5

Answer: E

Explanation: Generally in one System we can connect four Physical Harddisks. As a Primary Master, Primary Slave, Secondary Master, Secondary Slave.

In One System: Either four Primary partitions or 1 Primary or 2 Primary or 3 Primary + 1 extended and all logical partitions will be create under extended partations.

Hardisk device recognized as follows

Primary Master : /dev/hda

Primary Slave : /dev/hdb

Secondary Master : /dev/hdc

Secondary Slave : /dev/hdd

Suppose you have only single harddisk and going to install Linux, Maximum you can create 4 primary partitions. If you create four primary partitions you can't create extended partitions that mean no logical partitions can create.

QUESTION 458:

Which command will allow you to find a specific installed package?

- A. rpm -- list rpmname
- B. rpm -qvl rpmname
- C. rpm rpmname
- D. rpm -qv rpmname
- E. rpm -f rpmname

Answer: D

Explanation : To query the package whether, package is installed or not :

rpm -qv rpmname

example: rpm -qv ncurses à It shows rpm fullname, version if installed otherwise it will display package is not installed.

Installed package options:

rpm -qa à Lists all installed packages

rpm -qf filename à Shows owning package

rpm -qi rpmname à General Information of Package

rpm -ql rpmname à Shows all files owning by this package

QUESTION 459:

While installing from source code you don't see the configuration script. What command can you run to compile the code?

- A. make configure
- B. install
- C. install makefile
- D. make

Answer: D

The purpose of the make utility is to determine automatically which pieces of a large program need to be recompiled, and issue the commands to recompile them. example C programs, since they are most common, but you can use make with any programming language whose compiler can be run with a shell command. In fact, make is not limited to programs. You can use it to describe any task where some files must be updated automatically from others whenever the others change.

To prepare to use make, you must write a file called the makefile that

describes the relationships among files in your program, and the states the commands for updating each file. In a program, typically the executable file is updated from object files, which are in turn made by compiling source files.
So, make command compile the source code.

QUESTION 460:

You installed a beta rpm package, but are experiencing some problems with it. How can you remove this package?

- A. rpm -qe rpmname
- B. rpm -V --remove rpmname
- C. rpm -r rpmname
- D. rpm -d rpmname
- E. rpm -ev rpmname

Answer: D

To uninstall the package, we use the rpm -ev rpmname or rpm --erase rpmname
To install package: rpm -ivh rpmname : where -I means install, -v means verbose, -h means display the Hash marks.
To Upgrade rpm: rpm -Uvh rpmname: where -U means Upgrade.
To Freshen Upgrade : rpm -Fvh rpmname

QUESTION 461:

You are compiling some software from source. After running ./configure with the appropriate arguments and no errors, what is the next command to run?

Answer: ./make

The purpose of the make utility is to determine automatically which pieces of a large program need to be recompiled, and issue the commands to recompile them. example C programs, since they are most common, but you can use make with any programming language whose compiler can be run with a shell command. In fact, make is not limited to programs. You can use it to describe any task where some files must be updated automatically from others whenever the others change.
To prepare to use make, you must write a file called the makefile that describes the relationships among files in your program, and the states the commands for updating each file. In a program, typically the executable file is updated from object files, which are in turn made by compiling source files.

QUESTION 462:

What tool can you use to print shared library dependencies?

- A. ldconfig
- B. ldd
- C. libdep
- D. libpath
- E. ldev

Answer: B

Explanation: ldd command prints the shared libraries required by each program or shared library specified on the command line.

Example: ldd libdb.so.3

libc.so.6 => /lib/tls/libc.so.6 (0x00237000)

/lib/ld-linux.so.2 (0x0021e000)

QUESTION 463:

Using vi, you want to save changes to the file myfile with :w!, but vi complains it cannot write to the file. Therefore, you want to check the write permissions on the file. To do this without leaving vi, you type:

- A. :!ls -l myfile
- B. :\ls -l myfile
- C. esc :ls -l myfile
- D. :?ls -l myfile

Answer: A

Explanation: A is correct because if you want to execute the bash commands on vi editor, use !command . If you want to list the details of specified files, use !ls -l filename. Similarly to display the date use !date. To write the output of command in opened file in vi editor use !!date, !!ls -l etc.

QUESTION 464:

You want to search the file myfile for all occurrences of a string containing at least five characters, where character number 2 and 5 are "a" and character number 3 is NOT "b". Which command would you use?

- A. grep a^{*}b^{*}a myfile
- B. grep .a^[^b].a myfile
- C. grep .[a].*.[a] myfile
- D. grep .a^{*}b..a myfile

Answer: B

Explanation : String Processing Tools like grep, sed, awk uses wildcard characters.

. à Any Single character from the range

[abc] à Any Single Character from the set

[a-c] à Any Single Character from the Range

[^abc] à Any Single Character except from the set.

[^a-c] à Any Single Character except from the range.

According to Question, in 2nd and 5th position must be a and in 3rd position not b.

B. . means any single character in first position., a means a must be in second positions,

[^b] means b must not be in third position, . means any single character in fourth position and a in fifth position.

QUESTION 465:

You have read/write permission on an ordinary file foo. You have just run `ln foo bar`. What would happen if you ran `rm foo`?

- A. foo and bar would both be removed.
- B. foo would be removed while bar would remain accessible.
- C. foo would be removed. bar would still exist but would be unusable.
- D. Both foo and bar would remain accessible.
- E. You would be asked whether bar should be removed.

Answer: B

Explanation: Correct Answer is B. The `ln` command is used to create the link. There are two types of link a. Soft link b. Hard link.

a. Softlink à Can create for directory also, can span multiple partitions but available until and unless Original Files remain.

Syntax for Softlink

`ln -s originalfile linkfile`

b. Hardlink à One separate Physical File, can't create for directory, can't span multiple file but remains the link file if original file removed.

Syntax for Hardlink

`ln originalfile linkfile`

In Questions, created the bar hardlink of foo. That means bar is on separate physical file.

The file bar is accessible after removing the foo file also.

QUESTION 466:

You wish to send the output of a command to standard output (stdout) and save it to a file. The command to use is _____. (Do not specify arguments)

Answer: tee

Explanation: I want to show you one example, `set | tee set.out | less`. Here set command generates the output and gives as an input to tee command. tee command saves the output of set into set.out as well piping the output to less.

QUESTION 467:

Which TWO commands will find the path for the binary vim?

- A. man vim
- B. whereis vim
- C. apropos vim
- D. which vim

Answer: B, D

Explanation: which and whereis command displays the executable path of commands. Example: which clear shows actually where clear is stored similarly whereis clear.

QUESTION 468:

A user complains that she cannot run her script at a process priority higher than 0. Select the probable cause:

- A. Users can only run at a priority of 0.
- B. She is wrong -- users always run at a priority higher than 0.
- C. Only root can set a priority other than the default.
- D. Only root can raise the priority to higher than 0.

Answer: A

Explanation: Default Priority is 0 and root only can set priority from -20 (Highest) to 19 (lowest) priority. Whatever process user runs, process starts on default priority value 0.

If you are root and want to set priority use: nice -n priority_value command.

Example: nice -n -20 find /etc -name passwd. But users can't set the priority to process. If you tried from no-root user you will get message: nice: cannot set priority: Permission Denied.

QUESTION 469:

You enter the command date +%M. What does the output show you?

- A. the current year
- B. the current month
- C. the current hour
- D. the current minute
- E. the current second

Answer: D

Explanation: date command displays the current date and time information as well as we can set new date and time to system by supplying -s option.

To display time: date +%T

To display Minute: date +%M

To display Month : date +%m

%% a literal %

%a locale's abbreviated weekday name (Sun..Sat)

%A locale's full weekday name, variable length (Sunday..Saturday)

%b locale's abbreviated month name (Jan..Dec)

%B locale's full month name, variable length (January..December)

%c locale's date and time (Sat Nov 04 12:02:33 EST 1989)

%C century (year divided by 100 and truncated to an integer)
[00-99]

%d day of month (01..31)

%D date (mm/dd/yy)

%e day of month, blank padded (1..31)

%F same as %Y-%m-%d

%g the 2-digit year corresponding to the %V week number

%G the 4-digit year corresponding to the %V week number

%h same as %b

%H hour (00..23)

%I hour (01..12)

%j day of year (001..366)

%k hour (0..23)

%l hour (1..12)

%m month (01..12)

%M minute (00..59)

%n a newline

%N nanoseconds (000000000..999999999)

%p locale's upper case AM or PM indicator (blank in many locales)

%P locale's lower case am or pm indicator (blank in many locales)

%r time, 12-hour (hh:mm:ss [AP]M)

%R time, 24-hour (hh:mm)

%s second since 00:00 1970-01-01 UTC (a GNU extention)

%S second (00..60); the 60 is necessary to accommodate a leap second

%s seconds since a00:00:00 1970-01-01 UTCa (a GNU extension)

%s second (00..60); the 60 is necessary to accommodate a leap second

%t a horizontal tab

%T time, 24-hour (hh:mm:ss)

%u day of week (1..7); 1 represents Monday %U week number of year with Sunday as first day of week (00..53)

%V week number of year with Monday as first day of week (01..53)

%w day of week (0..6); 0 represents sunday

%W week number of year with Monday as first day of week (00..53)

%x locale's date representation (mm/dd/yy)
%X locale's time representation (%H:%M:%S)
%y last two digits of year (00..99)
%Y year (1970...)
%z RFC-2822 style numeric timezone (-0500) (a nonstandard extension)
%Z time zone (e.g., EDT), or nothing if no time zone is determinable

QUESTION 470:

You are logged in as user tux1, but now you want to switch users to tux2 with tux2's environment. How would you do this?

- A. su tux2
- B. su -e tux2
- C. su - tux2
- D. su -m tux2
- E. su -f tux2

Answer: C

Explanation: su means switch user. To switch from one user to another user with another user's environment and home directory use - option. Here switching to tux2, then su - tux2 is answer.

QUESTION 471:

Which command is used to dump files in octal format?

- A. od
- B. octdump
- C. dumpoct
- D. cat -o

Answer: A

Explanation: Answer A is correct. od command dump files in octal and other formats. Example: od test it will display the all contents of file in octal format.

QUESTION 472:

You wish to kill a process with a PID of 123. Select the command which will allow the process to "clean up" before exiting.

- A. kill -1123

- B. kill -9123
- C. kill -15123
- D. kill -17123

Answer: B

Explanation: To terminate the process we use kill command. But we should know the process ID. In questions PID is specified to 123.

Syntax of kill command is: kill signal PID

Where -9 is the powerful signal then other signal which kill the process.

QUESTION 473:

You need to create a simple hierarchy of directories: images/photos/summer/ottawa/. None of the directories on that path exists. What command will create all of the needed directories in one step?

- A. mkdir -r images/photos/summer/ottawa/
- B. mkdir -R images/photos/summer/ottawa/
- C. mkdir -p images/photos/summer/ottawa/
- D. mkdir -P images/photos/summer/ottawa/
- E. mkdir -m images/photos/summer/ottawa/

Answer: C

Explanation: -p options means no error if existing, make parent directories as needed. It will creates the directory images/photos/summer/Ottawa. Where images is the parent directory of photos, photos is the parent directory of summer etc.

QUESTION 474:

What command changes the priority of the process running with process id of 12345 to the highest priority?

- A. /usr/bin/renice +20 1234
- B. /usr/bin/renice -20 12345
- C. /bin/setpriority +20 12345
- D. /bin/setpriority -20 12345

Answer: B

Explanation: To change the priority of running process we use the renice command.

Default priority is 0, highest priority is -20 and lowest priority is 19. The path of renice command is /usr/bin/renice.

QUESTION 475:

You have a text file with tab-separated values, but your application needs them space-separated. What command would you use from the Bash shell to achieve this? Please fill in the command only, without any options.

Answer: expand

Explanation: The expand command is used to convert from tab to space.

Example: expand -t 2 test → It will convert the tab into two spaces.

QUESTION 476:

While using the vi editor, you wish to move ahead one page. You should press the control key and:

- A. A
- B. D
- C. F
- D. U

Answer: C

Explanation: To move screen in vi Editor,

F → go forward one full screen

B → go back one full screen

D → go down half screen

U → go up half screen

QUESTION 477:

Which command will print line numbers before each line in a file?

- A. ln
- B. nl
- C. cat -n
- D. numline

Answer: C

Explanation: cat command is used to display the contents of file in standard output.

Syntax: cat [option] filename.

Options: -n, -b → Display the line number before each line

-A → Show all characters including control characters.

-s → Squeeze multiple adjacent blank lines into one line

QUESTION 478:

You have two shell scripts, foo and bar. You wish to have bar execute if foo returns

an exit status of 0. Select the correct command:

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

Answer: C

Explanation: && à Logical AND Operator

|| à Logical OR Operator

! à Logical NOT Operator

Correct Answer is C because first tried to execute foo. If foo executes without any error then executes bar. If any error occurs in foo then exit from command.

QUESTION 479:

What key sequence will suspend the current process and return you to a shell prompt?

- A. Ctrl-z
- B. Ctrl-c
- C. Ctrl-x
- D. Ctrl-d

Answer: A

Explanation: A is correct because to suspend the foreground job we use ctrl+z keystroke. And it converts the foreground jobs in background in stopped status.

To display background job use: jobs command

QUESTION 480:

Which of the following GNU commands would be the most likely command you'd use to find the system load average?

- A. top
- B. nice
- C. loadavg
- D. cpustat
- E. ps

Answer: A

Explanation: The top program provides a dynamic real-time view of a running system. It can display system summary information as well as a list of tasks currently being managed by the Linux kernel. The types of system summary

information shown and the types, order and size of information displayed for tasks are all user configurable and that configuration can be made persistent across restarts.

QUESTION 481:

In order to append the output of ls to a file called bazz, which of the following command lines would you use?

- A. ls > bazz
- B. ls >& bazz
- C. ls &> bazz
- D. ls >> bazz

Answer: D

Explanation:

Common Redirection Operator:

Command >file à Redirect the Standard Output of command into file.

Command >>file à Append the Standard Output of command into file.

Command <file à Command receives input from file.

Command 2>file à Redirect the error message to file.

Command 2>>file à Append the error message to file.

QUESTION 482:

Select the default \$PATH set by the init command

- A. /bin:/sbin:/usr/local/bin:/etc:/usr/etc
- B. /usr/local/bin:/usr/local/sbin:/opt/bin:/bin:/sbin
- C. /usr/local/sbin:/sbin:/bin:/usr/sbin:/usr/bin
- D. /bin:/usr/bin:/usr/local/bin:/sbin:/usr/sbin

Answer: C

Explanation: To display the default set path use echo \$PATH command.

QUESTION 483:

What command will remove duplicate lines from a sorted file?

- A. filter
- B. trim
- C. uniq

D. wc

Answer: C

Explanation:

uniq - remove duplicate lines from a sorted file

QUESTION 484:

When you are looking for brief information about a program in your PATH with its associated man pages, you would use ...

- A. which
- B. whereis
- C. locate
- D. where

Answer: B

Explanation: Whereis - locate the binary, source, and manual page files for a command

Syntax: whereis [options] command

Options:

- b à Search only for binaries
 - m à Search only for manual section
 - s à Search only for sources.
-

QUESTION 485:

Which option must be listed in /etc/fstab to activate user quotas automatically?

- A. quota
- B. user
- C. quotaon
- D. usrquota

Answer: D

Explanation: To implement quota in partitions, we should mount with usrquota for user quota, grpquota for group quota.

Example of mounting /home using usrquota and grpquota options.

LABEL=/home /home ext3 defaults,usrquota,grpquota 1 2

QUESTION 486:

Which command will create an ext3 filesystem on /dev/hda2?

- A. `/sbin/mke2fs -d /dev/hda2`
- B. `/sbin/mke2fs -j /dev/hda2`
- C. `/sbin/mke2fs -m 3 /dev/hda2`
- D. `/sbin/mke2fs -c ext3 /dev/hda2`

Answer: B

Explanation: `mke2fs` - create an ext2/ext3 filesystem

`-j` Create the filesystem with an ext3 journal. If the `-j` option is not specified, the default journal parameters will be used to create an appropriately sized journal (given the size of the filesystem) stored within the filesystem. Note that you must be using a kernel, which has ext3 support in order to actually make use of the journal.

QUESTION 487:

Which of the following commands will list the quota for the user foobar?

- A. `repquota foobar`
- B. `quota foobar`
- C. `lsquota foobar`
- D. `printquota foobar`

Answer: B

Explanation: `quota` - display disk usage and limits. Quota displays user's disk usage and limits. By default only the user quotas are printed.

Either `quota -u username`

Or

`quota username`

To display group quota:

`quota -g groupname`

QUESTION 488:

You are experimenting with a binary in `/tmp/foo.d` that expects its configuration file at `/etc/foo.conf`. You don't want to save it there, but use a symbolic link to `/tmp/foo.d/foo.conf` instead.

Which command would accomplish that?

- A. `ln -s /tmp/foo.d/foo.conf /etc/foo.conf`
- B. `ln /tmp/foo.d/foo.conf /etc/foo.conf`
- C. `ln -s /etc/foo.conf /tmp/foo.d/foo.conf`
- D. `ln /etc/foo.conf /tmp/foo.d/foo.conf`

Answer: C

Explanation: Correct Answer is C. The ln command is used to create the link. There are two types of link a. Soft link b. Hard link.

b. Soft link à Can create for directory also, can span multiple partitions but available until and unless Original Files remain.

Syntax for Soft link

ln -s originalfile linkfile

b. Hard link à One separate Physical File, can't create for directory, can't span multiple file but remains the link file if original file removed.

Syntax for Hard link

ln originalfile linkfile

QUESTION 489:

Which command will print out the attributes of the file foobar?

- A. ls --attr foobar
- B. lsattr foobar
- C. printattr foobar
- D. fileattr foobar

Answer: B

lsattr - list file attributes on a Linux second extended file system

QUESTION 490:

Which file contains information about filesystems and their respective mount points?

- A. /etc/mount
- B. /etc/fs_mount
- C. /etc/fstab
- D. /proc/fstab

Answer: C

Explanation: Usually to mount the filesystem we use the mount command but that is only for the current session. To mount the filesystem at boot time automatically we use /etc/fstab.

Pattern of /etc/fstab Device mount point filesystem mount options dump fsck

Example LABEL=/ / ext3 defaults 1 1

LABEL=/boot /boot ext3 defaults 1 2

none /dev/pts devpts gid=5,mode=620 0 0

none /dev/shm tmpfs defaults 0 0

LABEL=/home /home ext3 defaults,usrquota,grpquota 1 2

none /proc proc defaults 0 0

LABEL=/usr /usr ext3 defaults 1 2

LABEL=/var1 /var ext3 defaults 1 2
LABEL=SWAP-hda7 swap swap defaults

QUESTION 491:

The command `mkfs -t ext3 /dev/hdb1 -T largefile` creates what size of inode?

- A. 4 kilobyte
- B. 1 megabyte
- C. 2 megabyte
- D. 4 megabyte

Answer: B

Explanation: `-T fs-type` : Specify how the filesystem is going to be used, so that `mke2fs` can choose optimal filesystem parameters for that use. Some Filesystem type are:

`news` : One inode per 4kb block
`largefile` : one inode per megabyte
`largefile4` : one inode per 4 megabytes

QUESTION 492:

What `umask` will set the file permissions on a newly created file to `-rw-r--r--` (644)?

- A. 0002
- B. 0022
- C. 0224
- D. 0246

Answer: B

Explanation: `umask` command is used to display and set the default permissions. Here in question asking for the `umask` value of newly created file having permission 644. If any permission is not changed then special permission i.e SUID, SGID and sticky bits are not set.

Then in for have total permission for file is:

7666
-7644

0022

QUESTION 493:

To allow a regular user account to mount and unmount a filesystem (for instance, a cdrom or floppy), which option will need to be added to the corresponding line in `/etc/fstab`?

- A. nouidchk
- B. alluser
- C. user
- D. auto

Answer: C

Explanation: Answer C is correct. user options is used to allow an ordinary user to mount the file system. The name of the mounting user is written to mtab so that user can unmount the file system again.

QUESTION 494:

What line do you need to add to the /etc/inittab file to boot in runlevel 5?

Answer: id:5:initdefault:

Explanation : To boot the system in runlevel 5 we should specify the id:5:initdefault: in /etc/inittab file. By passing kernel arguments from boot loader we can override the specified runlevel in /etc/inittab. If default runlevel is not specified, system boots on runlevel 9(unknown runlevel).

QUESTION 495:

On a system where the X window system is installed, but no additional window manager, a startup of X will by default:

- A. start the twm window manager.
- B. start the xwm window manager.
- C. drop you to a console.
- D. start with xterm as its one client.
- E. fail with an error

Answer: A

Explanation: metacity is the default window manager in the GNOME desktop.

Twm is the window manager that is used as a fall-back default.

Kwm is the window manager of KDE.

Here is the script written in /etc/X11/prefdm, which scripts read when system load X window system.

```
# Run preferred X display manager
preferred=
if [ -f /etc/sysconfig/desktop ] ; then
./etc/sysconfig/desktop
if [ "SDIPLAYMANAGER" = GONOME ] ; then
preferred=gdm
```

```
elif [ "SDIPSPLAYMANAGER" = KDE ] ; then
preferred=kdmm
elif [ "SDIPSPLAYMANAGER" = XDM ] ; then
preferred=xdm
fi
fi
shopt -s execfail
```

So, First Preferred Display Manager is gdm, loads metacity windows manager. If gdm not found, then loads the kdm and loads the kwm. If nither found then loads twm.

QUESTION 496:

Your Linux machine is set to boot to the graphical runlevel. You have updated some RPMs on your system and now you don't see video when the system boots. What line should you add/modify to the /etc/inittab file to boot in console mode?

Answer: x:5:respawn:/etc/X11/prefdm -nodaemon

Explanation: It specifies that x windows system should run on runlevel 5 as a nondaemon.

QUESTION 497:

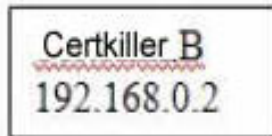
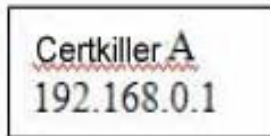
You are using an application that you want to appear on the screen of another machine. What environment variable would you have to set or edit to achieve this?

- A. DISPLAY
- B. REMOTE
- C. REMOTE_XWINDOW
- D. SCREEN

Answer: A

Explanation: To share the terminal between multiple hosts, we can export display.

Example



Suppose you want to run application on Certkiller B from Certkiller A.

Certkiller B in GUI Terminal:# xhost +192.168.0.1

Certkiller A in GUI Terminal:# export DISPLAY=192.168.0.2:0

xterm

QUESTION 498:

You want the command foo to take its input from the file foobar and send its output to the program bar.

Which of the following command lines will do this?

- A. foo < foobar | bar
- B. foo < foobar > bar
- C. foo | foobar > bar
- D. foo | bar < foobar
- E. foo > bar < foobar

Answer: B

Explanation:

Command> file → Redirect the standard Output to file.

Command>>file → Append the standard output to file.

Command<file → Takes input from the File.

Command 2>file → Redirect the standard error to file.

Command 2>>file → Append the Standard Error to file.

In B foo taking the input from foobar using < symbol and redirecting the output to >bar file

QUESTION 499:

Which of the following commands will send output from the program myapp to both standard output (stdout) and the file file1.log?

- A. cat < myapp | cat > file1.log
- B. myapp 0>&1 | cat > file1.log
- C. myapp | cat > file1.log
- D. myapp | tee > file1.log
- E. tee myapp file1.log
- F. All the other alternatives are incorrect.

Answer: F

Explanation: Answer should be like this: set | tee set.out → tee command helps to redirect the output to file while piping. Here output of set will display as well as output redirect to set.out file.

QUESTION 500:

The _____ command allows you to view or change serial port configuration.

Answer: setserial

Explanation:

setserial command helps to set or get the Linux Serial Port Information. setserial is a program designed to set and/or report the configuration information associated with a serial port. This information includes what I/O port and IRQ a particular serial port is using, and whether or not the break key should be interpreted as the Secure Attention Key, and so on.

QUESTION 501:

You need to install a fax server. Which type of fax/modem should you install to insure Linux compatibility?

- A. External Serial Fax/modem
- B. External USB Fax/modem
- C. Internal ISA Fax/modem
- D. Internal PCI Fax/modem

Answer: D

QUESTION 502:

What is the typical name for the first serial port, (com1)?

- A. /dev/com0
- B. /dev/com1
- C. /dev/ttyS0
- D. /dev/ttyS1
- E. none of the above

Answer: C

Explanation: Serial devices are usually called something like /dev/ttyS1 under Linux. The utility stty will allow you to interactively view or set the settings for a serial port; setserial will allow you to control a few extended attributes and configure IRQs and I/O addresses for non-standard ports.

Device name for first Serial Port is /dev/ttyS0.

QUESTION 503:

You run out of space and added a eighth disk to your SCSI-1 system. When you try to start, the system no longer boots. What is most likely the cause of this problem?

- A. SCSI-1 supports only 8 devices including the adaptor.

- B. SCSI-1 supports only 6 disks per adaptor.
- C. There is a SCSI-ID conflict that causes that problem.
- D. You forgot to set the SCSI-ID #8 for the new disk.

Answer: C

QUESTION 504:

In the BIOS, what setting should you disable so that your devices have the best chance of being recognized on boot-up?

- A. AGP Fast Write
- B. PnPOS
- C. ACPI Support
- D. Power Management/APM

Answer: C

QUESTION 505:

If Linux detects an ACPI BIOS on bootup, what does it automatically deactivate?

- A. PnP
- B. PCI
- C. ATA
- D. APM

Answer: D

QUESTION 506:

To what environment variable will you assign or append a value if you need to tell the dynamic linker to look in a build directory for some of a program's shared libraries?

- A. LD_LOAD_PATH
- B. LD_LIB_PATH
- C. LD_LIBRARY_PATH
- D. LD_SHARE_PATH
- E. LD_RUN_PATH

Answer:

QUESTION 507:

You have to test a new kernel version. Which of the following is the best way to add a new linux kernel in your system?

- A. rpm -fvh kernel_package
- B. rpm -Uvh kernel_package
- C. rpm -u kernel_package
- D. rpm -u kernel_package && make
- E. rpm --conflicts kernel_package

Answer: B

Explanation: Syntax of rpm command

rpm [options] package

-i à Install

-U à Upgrade package if lower version is installed otherwise install the new package.

-F à Upgrade package if only lower version is installed.

QUESTION 508:

Which utility can be used to convert a .rpm package to .deb package format? (Without arguments)

Answer: alien

Explanation

alien is a program that converts between Redhat rpm, Debian deb, Stampede slp, Slackware tgz, and Solaris pkg file

formats. If you want to use a package from another linux distribution than the one you have installed on your system,

you can use alien to convert it to your preferred package format and install it. It also supports LSB packages.

QUESTION 509:

You see following output while trying to install an updated package:

```
[root@example pub]# rpm -i gthumb-2.2.0.i386.rpm package gthumb-1.0.1.i386.rpm is already installed.
```

Which command will allow you to install the updated version?

- A. rpm -i gthumb-2.2.0.i386.rpm
- B. rpm -ivh gthumb-2.2.0.i386.rpm
- C. rpm -U gthumb-2.2.0.i386.rpm
- D. rpm -qu gthumb-2.2.0.i386.rpm
- E. rpm -qiv gthumb-2.2.0.i386.rpm

Answer: C

Explanation: Syntax of rpm command

rpm [options] package

-i à Install

-U à Upgrade package if lower version is installed otherwise install the new package.

-F à Upgrade package if only lower version is installed.

QUESTION 510:

User Joseph has successfully extracted and compiled a program from source code. Installing the binaries produces errors. What is the most likely reason?

- A. The source code was compiled for a different CPU.
- B. The permissions set in the /usr/bin directory are wrong.
- C. The binaries require root privileges to be installed.
- D. The wrong prefix was used during configuration of the source code.

Answer: C

QUESTION 511:

How do you get a list of files that have been installed from a dpkg package?

- A. dpkg -l pkgname
- B. dpkg -C pkgname
- C. dpkg -s pkgname
- D. dpkg -S pkgname
- E. dpkg -L pkgname

Answer: E

Explanation:

To list the files installed from a specified package, issue the command:
dpkg --getfiles package or dpkg -L package

QUESTION 512:

While installing an application from source code you don't see the configure script. What command can you run to compile the code?

- A. make configure
- B. install
- C. install makefile
- D. make

Answer: D

QUESTION 513:

In GRUB's configuration file you find the line

root (hd1, 4)

What is corresponding device name on a Linux system?

- A. /dev/hda4
- B. /dev/hda5
- C. /dev/hdb4
- D. /dev/hdb5

Answer: D

Explanation:

hd0 à Primary Master hda

hd1 à Primary Slave hdb

hd2 à Secondary Master hdc

hd3 à Secondary Slave hdd

Similarly partition number starts from 0 like array index in programming.

QUESTION 514:

What command will uninstall a package but leave its configuration files in case a package is re-installed?

- A. none, no command will do this
- B. dpkg -s pkgname
- C. dpkg -L pkgname
- D. dpkg -P pkgname
- E. dpkg -r pkgname

Answer: E

Explanation:

To remove an installed package, use the command

dpkg --remove

package or dpkg -r package This command does not remove package configuration files, which may facilitate subsequent re-installation of the package. If you want to remove the configuration files as well, use the command:

dpkg --purge package

QUESTION 515:

You want to preview where the package file,

apache-xml.I386.rpm, will install its files before installing it. What

command do you issue?

- A. rpm -qp apache.xml.i386.rpm
- B. rpm -qv apache.xml.i386.rpm
- C. rpm -ql apache.xml.i386.rpm
- D. rpm -qpl apache.xml.i386.rpm

Answer: D

Explanation:

Explanation: Syntax of rpm command

rpm [options] package

-i à Install

-U à Upgrade package if lower version is installed otherwise install the new package.

-F à Upgrade package if only lower version is installed.

-l à List all files belongs to package

-p à Package Name

-q à Query

To preview the package files location store after installation, rpm -qpl package.

QUESTION 516:

What is a reasonable command to uninstall a Debian package from your system?

- A. dpkg -Ra pkgname
- B. dpkg -R pkgname
- C. dpkg -r pkgname
- D. dpkg -ra pkgname

Answer:

QUESTION 517:

You want to install a new software package, but it is only available in RPM format and you are running Debian Linux. Which of the following would help you to install it on your system?

- A. alien
- B. apt-conf
- C. dselect
- D. cpio

Answer: A

alien is a program that converts between Redhat rpm, Debian deb, Stampede slp, Slackware tgz, and Solaris pkg

file formats. If you want to use a package from another linux distribution than the one you have installed on your system, you can use alien to convert it to your preferred package format and install it. It also supports LSB packages.

QUESTION 518:

You have an updated RPM called screensaver-1.1.i386. rpm. You have version 1.0 installed. Using RPM, how do you view the changelog of this file to see if you should install the update?

- A. rpm -qp --changelog screensaver-1.1.i386. rpm
- B. rpm --changelog screensaver-1.1.i386. rpm
- C. rpm -qc screensaver-1.1.i386. rpm
- D. rpm -showchangelog screensaver-1.1.i386. rpm

Answer: B

Explanation: Syntax of rpm command

rpm [options] package

-i à Install

-U à Upgrade package if lower version is installed otherwise install the new package.

-F à Upgrade package if only lower version is installed.

-l à List all files belongs to package

-p à Package Name

-q à Query

--changelog à Display change information for the package.

QUESTION 519:

You have not run apt-get, on a system for some time, but it has been run on the system before. What apt-get command would you run to download the latest list of packages, but not the packages themselves?

- A. apt-get build-dep
- B. apt-get mirror-select
- C. apt-get update
- D. apt-get upgrade
- E. apt-get dist-upgrade

Answer: D

Explanation:

To automatically upgrade all installed packages to the latest available version, issue the following command:

apt-get upgrade

QUESTION 520:

How can you list files owned by a specific .deb package?

- A. dpkg -L package
- B. dpkg --dump package
- C. dselect --dump package
- D. dselect -L package

Answer: A

To list the files installed from a specified package, issue the command:
dpkg --get-selections package or dpkg -L package

QUESTION 521:

Which TWO of the following commands allows you to manage .deb packages?

- A. dpkg
- B. deb
- C. dselect
- D. debselect

Answer: A, C

QUESTION 522:

Which of the following commands will print the current video settings to stdout in xf86Config "Modeline " format?

- A. xinfo -mode
- B. xset -info
- C. xf86config -list
- D. xvidtune -show

Answer: D

QUESTION 523:

You just started X for the first time and noticed that the display does not use the entire screen. What program can you use to fix this?

- A. xvidtune
- B. xf86config
- C. XF86Setup

D. tweakscreen

Answer: B

QUESTION 524:

Your senior administrator asked you to change the default background of his machine, which uses XDM. Which file would you edit to achieve this?

- A. /etc/X11/xdm/Xsetup
- B. /etc/X11/xdft.conf
- C. /etc/X11/xdm/Defaults
- D. /etc/X11/defaults.conf

Answer: A

QUESTION 525:

Which of the following is the default XFree86 configuration file?

- A. /usr/X11R6/etc/XF86Config
- B. /var/X11/XF86Config
- C. /etc/X11/XF86Config
- D. /usr/etc/X11/XF86Config

Answer: C

Explanation: When you configure the Vide card, monitor type, resolution using xf86config command, all information stores in /etc/X11/XF86Config file and when Linux start GUI reads the information from this file.

QUESTION 526:

What does the command mount -a do?

- A. It mounts the floppy disk for all users.
- B. It shows all mounted file systems.
- C. It opens /etc/fstab to edit.
- D. It mounts all file systems listed in /etc/fstab.

Answer: D

Explanation: mount command lists all mounted file system. -a option is used to mount all file system written in /etc/fstab.

QUESTION 527:

You changed umask to prevent access to your files by others. Now you realize that another user has read a document that you wrote 2 weeks ago. Which of the following statements is correct?

- A. You forgot a umask option.
- B. You had to delete all older files.
- C. You forgot to use chmod.
- D. You have to reboot.

Answer: C

umask command is used to set the default permission to new file or directory. It will not change the permission of already created files/directories. To change the Permission of already created files/directories, should chmod command.

QUESTION 528:

Which utility would you use to change how often a filesystem check was performed over an EXT2 filesystem (without losing any data stored on that filesystem)?

- A. mod2fs
- B. fsck
- C. tune2fs
- D. mke2fs
- E. fixe2fs

Answer: B

Explanation: fsck is used to check and optionally repair one or more Linux file systems. filesys can be a device name (e.g. /dev/hdc1, /dev/sdb2), a mount point (e.g. /, /usr, /home). Normally, the fsck program will try to run file systems on different physical disk drives in parallel to reduce total amount time to check all of the file systems.

QUESTION 529:

Which of the following commands is run last during boot on a system with quotas enabled?

- A. fsck
- B. mount
- C. quotacheck
- D. quotaon

Answer: D

Explanation: quotaon announces to the system that disk quotas should be enabled on one or more filesystems. The filesystem quota files must be present in the root directory of the specified filesystem and be named either aquota.user (for version 2 user quota), quota.user (for version 1 user quota), aquota.group (for version 2 group quota), or quota.group (for version 1 group quota).

QUESTION 530:

Which chown command will change the ownership to foo and the group to bar on a file named biglist?

- A. chown foo/bar biglist
- B. chown -u foo -g bar biglist
- C. chown foo:bar biglist
- D. chown --user foo --group bar biglist

Answer: C

Explanation: chown command is used to change the user owner and group owner of file or directory.

Syntax: chown user:group file/directory

OR

chown user.group file/directory

QUESTION 531:

You are trying to make a hard link to an ordinary file but ln returns an error. Which of the following could cause this?

- A. The source file is hidden.
- B. The source file is readonly.
- C. The source file is a shell script.
- D. You do not own the source file.
- E. The source and the target are on different filesystems.

Answer: E

Hard link creates a separate physical File means it point to the original data then original filename. But hard link can't create for directory and can't span the multiple partitions.

QUESTION 532:

Which of the following Linux filesystems pre-allocates a fixed number of inodes at filesystems make/creation time, and does NOT

generate them as needed?

- A. ext3
- B. jfs
- C. reiserfs
- D. xfs

Answer: A

What are the advantages of ext3? Why do you want to migrate from ext2 to ext3? Four main reasons: availability, data integrity, speed, and easy transition.

Availability

After an unclean system shutdown (unexpected power failure, system crash), each ext2 file system cannot be mounted until its consistency has been checked by the e2fsck program. The amount of time that the e2fsck program takes is determined primarily by the size of the file system, and for today's relatively large (many tens of gigabytes) file systems, this takes a long time. Also, the more files you have on the file system, the longer the consistency check takes. File systems that are several hundreds of gigabytes in size may take an hour or more to check. This severely limits availability.

By contrast, ext3 does not require a file system check, even after an unclean system shutdown, except for certain rare hardware failure cases (e.g. hard drive failures). This is because the data is written to disk in such a way that the file system is always consistent.

The time to recover an ext3 file system after an unclean system shutdown does not depend on the size of the file system or the number of files; rather, it depends upon the size of the "journal" used to maintain consistency. The default journal size takes about a second to recover (depending on the speed of the hardware).

Data Integrity

Using the ext3 file system can provide stronger guarantees about data integrity in case of an unclean system shutdown. You choose the type and level of protection that your data receives. You can choose to keep the file system consistent, but allow for damage to data on the file system in the case of the unclean system shutdown; this can give a modest speed up under some but not all circumstances. Alternatively, you can choose to ensure that the data is consistent with the state of the file system; this means that you will never see garbage data in recently-written files after a crash. The safe choice, keeping the data consistent with the state of the file system, is the default.

Speed

Despite writing some data more than once, ext3 is often faster (higher throughput) than ext2 because ext3's journaling optimizes hard drive head motion. You can choose from three journaling modes to optimize speed, optionally choosing to trade off some data integrity.

1. One mode,

data=writeback, limits the data integrity guarantees, allowing old data to show up in files after a crash, for a potential increase in speed under some circumstances. (This mode, which is the default journaling mode for most journaling file systems, essentially provides the more limited data integrity guarantees of the ext2 file system and merely avoids the long file system check at boot time.)

2. The second mode, data=ordered (the default mode), guarantees that the data is consistent with the file

systems; recently-written files will never show up with garbage contents after a crash.
3. The last mode, `data=journal`, requires a larger journal for reasonable speed in most cases and therefore takes longer to recover in case of unclean shutdown, but is sometimes faster for certain database operations.

The default mode is recommended for general-purpose computing needs. To change the mode, add the `data=something` option to the mount options for that file system in the `/etc/fstab` file, as documented in the mount man page (`man mount`).

Easy Transition

It is easy to change from `ext2` to `ext3` and gain the benefits of a robust journaling file system, without reformatting. That's right, there is no need to do a long, tedious, and error-prone backup-reformat-restore operation in order to experience the advantages of `ext3`. There are two ways to perform the transition:

1. The Red Hat Linux installation program offers to transition your file systems when you upgrade your system. All you have to do is select one checkbox per file system. The `tune2fs` program can add a journal to an existing `ext2` file system. If the file system is already mounted while it is being transitioned, the journal will be visible as the file `.journal` in the root directory of the file system. If the file system is not mounted, the journal will be hidden and will not appear in the file system. Just run `tune2fs -j /dev/hda1` (or whatever device holds the file system you are transitioning) and change `ext2` to `ext3` on the matching lines in `/etc/fstab`. If you are transitioning your root file system, you will have to use an `initrd` to boot. Run the `mkinitrd` program as described in the manual and make sure that your LILO or GRUB configuration loads the `initrd`. (If you fail to make that change, the system will still boot, but the root file system will be mounted as `ext2` instead of `ext3` - you can tell this by looking at the output of the command `cat`

QUESTION 533:

You are using quota on your system. How can you see disk quota details?

- A. `repquota`
- B. `quota -l`
- C. `quota`
- D. `quotachech`
- E. `quota -list`

Answer: A

Explanation: `repquota` prints a summary of the disk usage and quotas for the specified file systems. For each user the current number of files and amount of space (in kilobytes) is printed, along with any quotas created with `edquota`.

Example : `repquota /home` prints the summary of disk usage and other information of all users.

QUESTION 534:

On boot you see an error message indicating that line 18 of /etc/fstab is bad. Looking at it shows:
/dev/fd0 /mnt/floppy auto auto, user 0 0
Why is there an error?

- A. auto is not allowed in the third field for removable media.
- B. auto in the fourth field cannot be used for removable media.
- C. The fifth field must be 1 for removable media.
- D. The sixth field must be 1 for removable media

Answer: B

QUESTION 535:

How many inodes are assigned to a file when it is created?

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

Answer: A

Explanation: One inode is assigned to one file. You can see by using ls -li or stat filename.

QUESTION 536:

You want the default permissions for your files to be -rw-r----- .
HOW must you set umask?

- A. 037
- B. 640
- C. 038
- D. 027

Answer: A

Explanation:
Total Permission 777
New Permission to set 740

Total Difference 037
umask 037 should set.

QUESTION 537:

Which program finds only files that are in your path?

Answer: slocate

Explanation: Secure Locate provides a secure way to index and quickly search for files on your system. It uses incremental encoding just like GNU locate to compress its database to make searching faster, but it will also store file permissions and ownership so that users will not see files they do not have access to.

QUESTION 538:

After creating a new file, you notice that the permissions of the new file are -rw-rw-rw-. From this, you know that the value of the umask is what?

- A. 023
- B. 000
- C. 112
- D. d111
- E. 223

Answer: B

Explanation:

If you apply the 777 permission, the will not the execute permission. So, Files maximum permission is 6.

Maximum Permission to file 666

Applied Permission to file 666

Unmask value is -----

000

QUESTION 539:

Which of the following commands will print the inode usage on each mounted filesystem?

- A. du -i
- B. df -i
- C. lsfs -i
- D. printfs -i

Answer: B

Explanation

Report filesystem disk space usage.
df -i list inode information instead of block usage.

QUESTION 540:

What command will print a list of usernames (first column) and their corresponding user id (uid, third column) from /etc/passwd?

- A. cut -d: -f 1,3 /etc/passwd"
- B. chop -c 1,3 /etc/passwd"
- C. tac 1-3/etc/passwd"
- D. fmt-u/etc/passwd""

Answer: A

Explanation:

Cut command helps to display certain fields value from file. In cut command -d option is used to specify the field delimiter and -f specify the field number.

QUESTION 541:

Which shell built-in command can be used to create a shortcut or pseudonym for a longer command? Assume a modern bourne-like shell, such as bash.

- A. shortcut
- B. ln
- C. sudo
- D. link
- E. alias

Answer: E

Alias command is used to create like shortcut of long command.

Example: alias back="tar -cvf mytar.tar /root/*", here back will be the alias (shortcut) of complete "tar -cvf mytar.tar /root/*" command.

QUESTION 542:

In the vi editor, which of the following commands will delete the current line at the cursor and the 16 lines following it (17 lines total)?

- A. 17d
- B. 17dd
- C. 17x
- D. d17d
- E. 16d

Answer: B

Explanation: dd option is used to delete the current line. To delete more than one line, we should pass the number of lines from current line.

QUESTION 543:

. Which of the following sed commands will replace all instances of the string foo with the string foobar changing the file file1.txt in place?

- A. sed 's/foo/foobar/g' file1.txt
- B. sed 's/foo/foobar/g' file1.txt > file1.txt
- C. sed 's/foo/foobar/g' file1.txt | file1.txt
- D. sed -i 's/foo/foobar/g' file1.txt
- E. sed -i 's/foo/foobar/g' file1.txt > file1.txt

Answer: A

Explanation: sed called Stream Editor, usually used to search and replace the string pattern in file.

Syntax: sed 's/whattofind/replacewith/globally' filename

Example: sed 's/cat/dog/g' test.txt will replace all cat occurrence to dog from test file.

QUESTION 544:

Which of the following commands is equivalent to kill 1234?

- A. kill -1 1234 or kill -s SIGHUP 1234
- B. kill -2 1234 or kill -s SIGINT 1234
- C. kill -3 1234 or kill -s SIGQUIT 1234
- D. kill -9 1234 or kill -s SIGKILL 1234
- E. kill -15 1234 or kill -s SIGTERM 1234

Answer: E

Explanation

The command kill sends the specified signal to the specified process or process group. If no signal is specified, the TERM signal is sent.

QUESTION 545:

To prevent a command run as root from sending both standard out (stdout) and standard error (stderr) to any terminal or other file or device, which of the following strings should be appended to the command?

- A. >/dev/null
- B. >/dev/null 1>&2
- C. >/dev/null 2>&1
- D. 1>&2 >/dev/null
- E. 2>&1 >/dev/null

Answer: C

Explanation:

Command> file à Redirect the standard Output to file.

Command>>file à Append the standard output to file.

Command<file à Takes input from the File.

Command 2>file à Redirect the standard error to file.

Command 2>>file àAppend the Standard Error to file.

QUESTION 546:

Which command will print to standard out only the lines that do not begin with # (pound symbol) in the file foobar?

- A. /bin/grep ^# foobar
- B. /bin/grep -v ^# foobar
- C. /bin/grep #\$ foobar
- D. /bin/grep -v #\$ foobar

Answer: B

grep stands for general regular processor, used to prints all lines where pattern matched.

Achor symbol used by String Processor tools like sed, awk and grep

^ àLine begins with

\$ à Line ends with

\<word begins with

\>word end with

-v option in grep is non matching.

QUESTION 547:

What is the default process priority when a process is started using the nice command?

- A. -10
- B. 10
- C. 20
- D. 0

Answer: D

Default Priority for nice command is 0, highest is -20 and lowest is 19.

QUESTION 548:

Given the following output:

```
prompt> myapp  
[1]+ Stopped myapp  
prompt>
```

Which of the following commands command prompt?
resume executing the stopped process while allowing the user to continue
to type commands at the

- A. bg myapp
- B. continue myapp
- C. exec myapp
- D. fg myapp
- E. myapp &

Answer: A

Jobs running on foreground can suspend by pressing ctrl+z. Then suspended job can be run either in foreground or in background. To run in foreground, fg command and to run in background bg command.

Or

```
bg job id  
fg job id
```

QUESTION 549:

How can you replace all tabs in a file named file1 with spaces?

- A. file --tabs-to-spaces FILE1
- B. extend FILE1
- C. wc -t2s FILE1
- D. expand FILE1

Answer: D

Explanation: expand command convert tabs in each FILE to spaces, writing to standard output.

QUESTION 550:

Which command line option would you use to restrict the GNU find command to searching a particular number of subdirectories?

- A. --max-dirs
- B. -dirmax
- C. -maxdepth
- D. -s
- E. -n

Answer: C

Descend at most levels (a non-negative integer) levels of directories below the command line arguments.