



Exam : RH-202

**Title : Redhat Certified Technician on Redhat
Enterprise Linux 4 (Labs)**

Ver : 01.03.07

Introduction

The RHCT certification exam consists of two parts conducted in a half-day session. The exam is performance-based, meaning that candidates must perform tasks on a live system, rather than answering multiple choice questions. The two parts of the RHCT exam are:

- Section I: Troubleshooting and System Maintenance (1 hour)
- Section II: Installation and Configuration (2 hours)

In order to pass the Red Hat Certified Technician exam, you must meet all of the following requirements:

- Successful completion of all troubleshooting problems in Section I (all troubleshooting problems are compulsory);
- A score of 70 percent or higher on Section II, Installation and Configuration.

Candidates will be emailed exam results within three business days following the exam.

RHCT skills

Troubleshooting and System Maintenance

RHCTs should be able to:

- boot systems into different run levels for troubleshooting and system maintenance
- diagnose and correct misconfigured networking
- diagnose and correct hostname resolution problems
- configure the X Window System and a desktop environment
- add new partitions, filesystems, and swap to existing systems
- use standard command-line tools to analyze problems and configure system

Installation and Configuration

RHCTs must be able to:

- Perform network OS installation
- Implement a custom partitioning scheme
- configure printing
- configure the scheduling of tasks using cron and at
- attach system to a network directory service, such as NIS or LDAP
- configure autofs
- add and manage users, groups, and quotas
- configure filesystem permissions for collaboration
- install and update RPMs
- properly update the kernel RPM
- modify the system bootloader
- implement software RAID at install-time and run-time
- use /proc/sys and sysctl to modify and set kernel run-time parameters

Lab Setup on RHCT Exam

Remember the Key points of Lab Configuration:

1. Lab Configuration is on 192.168.0.0/24 for example.com domain and 192.168.1.0/24 forcracker.org domain.
2. DHCP Server is configured.

3. DNS Server is 192.168.0.254
4. One NIS Server is configured rhce.com and server is 192.168.0.254

Before starting debug Exam Think!

In Debug Section All Questions a compulsory! You should finish these all questions within a hour.

Topic 1, Debug Section (26 Questions)

QUESTION 1

Make Successfully Resolve to server1.example.com where DNS Server is 192.168.0.254.

Answer: 1. vi /etc/resolv.conf

Write : nameserver 192.168.0.254

Explanation : If you have multiple name server (DNS), you can append another line.

First Request goes to the First name server if not found then goes to second name server.

Then try to resolve the Server1.example.com by using host or dig command.

Eg: host server1.example.com

When we use the DNS client tool first it sends the request to the DNS server specified in /etc/resolv.conf as a name server. If that DNS is not found then it sends the request to the Root name Server. I will explain about the root Name server.

QUESTION 2

Quota is implemented in /data but not working properly. Find out the Problem and implements the quota to user1 to have a soft limit 60 inodes (files) and hard limit of 70 inodes (files).

Answer:

You should to implement the quota on any directory that should be mounted with usrquota option for user quota and grpquota for group quota.

1. vi /etc/fstab

/dev/hda11 /data ext3 defaults,usrquota 0 0

2. Either Reboot the System or remount the partition.

Mount -o remount /dev/hda11 /data

3. touch /data/aquota.user

4. quotacheck -ufm /data

5. quotaon -u /data

6. edquota -u user1 /data

and Specified the Soft limit and hard limit on opened file.

To verify either quota is working or not:

i. Login as user1

ii. Create the 61 files and see the warning of soft limit.

iii use the quota command.

QUESTION 3

One Logical Volume named lv1 is created under vg0. The Initial Size of that Logical

RH-202

Volume is 100MB. Now you required the size 500MB. Make successfully the size of that Logical Volume 500M without losing any data. As well as size should be increased online.

Answer and

Explanation: In RHEL 4 LVM (Logical Volume Manager) is Version 2.

The new feature added is online extend. In previous version you should unmount the device.

1. Verify the size of Logical Volume: `lvdisplay /dev/vg0/lv1`
2. Verify the Size on mounted directory: `df -h` or `df -h` mounted directory name
3. Use : `lvextend -L+400M /dev/vg0/lv1`
4. `ext2online -d /dev/vg0/lv1` to bring extended size online.
5. Again Verify using `lvdisplay` and `df -h` command.

Explain: The Features of LVM is dynamically resize the partition. If you resize data will not lost.

LVM Concepts

Multiple Physical Disks belongs to physical group. Using multiple disks belongs to physical group we can create on Volume group. Under that Volume Group we can create multiple Logical Volume and only these Logical Volume we can use. As well as we can increase and decrease the size of Logical Volume by using `lvextend`, `lvresize` etc.

More details in Configuration Section.

QUESTION 4

Create one partitions having size 100MB and mount it on /data.

Answer and Explanation:

1. Use `fdisk /dev/hda` To create new partition.
2. Type `n` For New partitions
3. It will ask for Logical or Primary Partitions. Press `l` for logical.
4. It will ask for the Starting Cylinder: Use the Default by pressing Enter Key.
5. Type the Size: `+100M` You can Specify either Last cylinder of Size here.
6. Press `P` to verify the partitions lists and remember the partitions name.
7. Press `w` to write on partitions table.
8. Either Reboot or use `partprobe` command.
9. Use `mkfs -t ext3 /dev/hda?`

Or

`mke2fs -j /dev/hda?` To create ext3 filesystem.

10. `vi /etc/fstab`

Write:

`/dev/hda? /data ext3 defaults 0 0`

11. Verify by mounting on current Sessions also:

`mount /dev/hda? /data`

QUESTION 5

You are new System Administrator and from now you are going to handle the system and your main task is Network monitoring, Backup and Restore. But you don't know the root password. Change the root password to redhat and login in

default Runlevel.

Answer and Explanation:

When you Boot the System, it starts on default Runlevel specified in /etc/inittab:

Id?:initdefault:

When System Successfully boot, it will ask for username and password. But you don't know the root's password.

1. Restart the System.
2. You will get the boot loader GRUB screen.
3. Press a and type 1 or s for single mode
ro root=LABEL=/ rhgb quiet 1
4. System will boot on Single User mode.
5. Use passwd command to change.
6. Set redhat password.
7. Press ctrl+d

QUESTION 6

There are more than 400 Computers in your Office. You are appointed as a System Administrator. But you don't have Router. So, you are going to use your One Linux Server as a Router. How will you enable IP packets forward?

Answer and

Explanation:

1. /proc is the virtual filesystem, we use /proc to modify the kernel value at running time. So For Current Session:

```
echo "1" >/proc/sys/net/ipv4/ip_forward
```

2. /etc/sysctl.conf when System Reboot on next time, /etc/rc.d/rc.sysinit scripts reads the file /etc/sysctl.conf. So if you want to permanently set the IP forwarding enable, You should set:

```
net.ipv4.ip_forward=1
```

Here 0 means disable, 1 means enable.

QUESTION 7

You Completely Install the Redhat Enterprise Linux ES 4 on your System. While start the system, it's giving error to load X window System. How will you fix that problem and make boot successfully run X Window System.

Answer and

Explanation:

Thinks While Problems occurred on booting System on Runlevel 5 (X Window).

1. /tmp is full or not
2. Quota is already reached
3. Video card or resolution or monitor is misconfigured.
4. xfs service is running or not.

Do These:

1. df -h /tmp /tmp is full remove the unnecessary file
2. quota username if quota is already reached remove unnecessary file from home directory.
3. Boot the System in runlevel 3. you can pass the Kernel Argument from

boot loader.

4. Use command: system-config-display It will display a dialog to configure the monitor, Video card, resolution etc.

5. Set the Default Runlevel 5 in /etc/inittab

id:5:initdefault:

6. Reboot the System you will get the GUI login Screen.

Note: at exam neither X window nor GNOME are installed at debug, you just have to do:

/etc/inittab

id:5:initdefault:

and use the system-config-display

Reboot the system

QUESTION 8

There are two different networks, 192.168.0.0/24 and 192.168.1.0/24. Your System is in 192.168.0.0/24 Network. One RHEL 4 Installed System is going to use as a Router. All required configuration is already done on Linux Server. Where 192.168.0.254 and 192.168.1.254 IP Address are assigned on that Server. How will make successfully ping to 192.168.1.0/24 Network's Host?

Answer:

1. vi /etc/sysconfig/network

GATEWAY=192.168.0.254

OR

vi /etc/sysconf/network-scripts/ifcfg-eth0

DEVICE=eth0

BOOTPROTO=static

ONBOOT=yes

IPADDR=192.168.0.?

NETMASK=255.255.255.0

GATEWAY=192.168.0.254

2. service network restart

Explanation: Always packets go to default gateway if specified. First it search the gateway assigned on interface name, then network global configuration file. The System having IP Address 192.168.0.254, 192.168.1.254 is being used as Router so we should set the gateway to that system.

QUESTION 9

Make a swap partition having 100MB. Make Automatically Usable at System Boot Time.

Answer and

Explanation:

1. Use fdisk /dev/hda To create new partition.

2. Type n For New partition

3. It will ask for Logical or Primary Partitions. Press l for logical.

4. It will ask for the Starting Cylinder: Use the Default by pressing Enter Key.
 5. Type the Size: +100M You can Specify either Last cylinder of Size here.
 6. Press P to verify the partitions lists and remember the partitions name.
Default System ID is 83 that means Linux Native.
 7. Type t to change the System ID of partition.
 8. Type Partition Number
 9. Type 82 that means Linux Swap.
 10. Press w to write on partitions table.
 11. Either Reboot or use partprobe command.
 12. mkswap /dev/hda? To create Swap File system on partition.
 13. swapon /dev/hda? To enable the Swap space from partition.
 14. free -m Verify Either Swap is enabled or not.
 15. vi /etc/fstab
/dev/hda? swap swap defaults 0 0
 16. Reboot the System and verify that swap is automatically enabled or not.
-

QUESTION 10

You are a System administrator. Using Log files very easy to identify the problem. Now there are 50 servers running as Mail, Web, Proxy, DNS etc. You want centralize the log from all servers into on LOG Server. How will you configure the LOG Server?

Answer and

Explanation:

By Default System Accept the Log only from the Local host. To accept the Log from other host configure:

1. vi /etc/sysconfig/syslog

SYSLOGD_OPTIONS="-m 0 -r"

Where

-m 0 disables 'MARK' messages.

-r enables logging from remote machines

-x disables DNS lookups on messages recieved with -r

2. service syslog restart

QUESTION 11

You are giving the debug RHCT exam. The examiner told you that the password of root is redhat. When you tried to login displays the error message and redisplayed the login screen. You changed the root password, again unable to login as a root. How will you make Successfully Login as a root.

Answer and

Explanation:

When root unable to login into the system think:

1. Is password correct?

2. Is account expired?

3. Is terminal Blocked?

Do these Steps:

1. Boot the System on Single user mode.

RH-202

2. Change the password
 3. Check the account expire date by using `chage -l root` command.
If account is expired, set net expire date: `chage -E "NEVER" root`
 4. Check the file `/etc/securetty` Which file blocked to root login from certain terminal.
 5. If terminal is deleted or commented write new or uncomment.
 6. Reboot the system and login as a root.
-

QUESTION 12

You are giving RHCT Exam and in your Exam paper there is a question written, make successfully ping to 192.168.0.254.

Answer and

Explanation:

In Network problem think to check:

1. IP Configuration: use `ifconfig` command either IP is assigned to interface or not?
2. Default Gateway is set or not?
3. Hostname is set or not?
4. Routing problem is there?
5. Device Driver Module is loaded or not?
6. Device is activated or not?

Check In this way:

1. use `ifconfig` command and identify which IP is assigned or not.
2. `cat /etc/sysconfig/network` What, What is written here. Actually here are these parameters.

NETWORKING=yes or no

GATEWAY=x.x.x.x

HOSTNAME=?

NISDOMAIN=?

- Correct the file

3. Use `netconfig` command

- Either Select Automatically from DHCP or assign the static IP

4. Use `service network restart` or `start` command

Now try to ping it will work.

QUESTION 13

Set the Hostname `station?.example.com` where ? is your Host IP Address.

Answer and

Explanation:

1. `hostname station?.example.com` This will set the host name only for current session. To set hostname permanently.

2. `vi /etc/sysconfig/network`

HOSTNAME=station?.example.com

3. `service network restart`
-

QUESTION 14

The System you are using is for NFS (Network File Services). Some important data are shared from your system. Make automatically start the nfs and portmap services at boot time.

Answer and

Explanation:

We can control the services for current session and for next reboot time. For current Session, we use service servicename start or restart or stop or status. For automatically at next reboot time:

1. chkconfig servicename on or off

eg: chkconfig nfs on

chkconfig portmap on

or

ntsysv

Select the nfs and portmap services.

2. Reboot the system and identify whether services are running or not.

QUESTION 15

There is one partition named /dev/hda14 mounted on /data. The owner of /data is root user and root group. And Permission is full to owner user, read and execute to group member and no permission to others. Now you should give the full permission to user user1 without changing pervious permission.

Answer and

Explanation:

We know that every files/directories are owned by certain user and certain group. And Permissions are defines to owner user, owner group and other.

-rwxr-x--- Full permission to owner user, read and write to owner group and no permission to others.

According to question: We should give the full permission to user user1 without changing the previous permission. We have ACL (Access Control List), in ext3 file system we can give certain permission to certain user and certain group without changing previous permission. But that partition should mount using acl option. Follow the steps

1. vi /etc/fstab

/dev/hda14 /data ext3 defaults,acl 0 1

2. Either Reboot or use: mount -o remount /data

3. setfacl -m u:user1:rwx /data

4. Verify using: getfacl /data

QUESTION 16

One Logical Volume is created named as myvol under vo volume group and is mounted. The Initial Size of that Logical Volume is 124MB. Make successfully that the size of Logical Volume 245MB without losing any data. The size of logical volume 240MB to 255MB will be acceptable.

Answer and

Explanation:

[RH-202](#)

1. First check the size of Logical Volume: `lvdisplay /dev/vg/myvol`
2. Increase the Size of Logical Volume: `lvextend -L+121M /dev/vg/myvol`
3. Make Available the size on online: `ext2online /dev/vg/myvol`
4. Verify the Size of Logical Volume: `lvdisplay /dev/vg/myvol`
5. Verify that the size comes in online or not: `df -h`

We can extend the size of logical Volume using the `lvextend` command. As well as to decrease the size of Logical Volume, use the `lvresize` command. In LVM v2 we can extend the size of Logical Volume without unmount as well as we can bring the size of Logical Volume on online using `ext2online` command.

QUESTION 17

There are two different networks 192.168.0.0/24 and 192.168.1.0/24. Where 192.168.0.254 and 192.168.1.254 IP Address are assigned on Server. Verify your network settings by pinging 192.168.1.0/24 Network's Host.

Answer and

Explanation: At exam time read the Lab Scenario carefully. Actually there are two different networks one is 192.168.0.0/24 where your system resides know as example.com domain and another is 192.168.1.0/24 know as cracker.org domain.

One server named sever1.example.com having 192.168.0.254 and 192.168.1.254 is running in your exam. If you make a gateway to that server, you will can ping because IP forwarding is enabled on that server.

```
1. vi /etc/sysconfig/network
NETWORKING=yes
HOSTNAME=station?.example.com
GATEWAY=192.168.0.254
```

```
2. service network restart
```

Or

```
1. vi /etc/sysconfig/network-scripts/ifcfg-eth0
DEVICE=eth0
ONBOOT=yes
BOOTPROTO=static
IPADDR=X.X.X.X
NETMASK=X.X.X.X
GATEWAY=192.168.0.254
```

```
2. ifdown eth0
```

```
3. ifup eth0
```

Note: If gateway is specified in both file, default gateway takes from interface specific file.

QUESTION 18

neo user tried by:

```
dd if=/dev/zero of=/home/neo/somefile bs=1024 count=70
```

files created successfully. Again neo tried to create file having 70K using following command:

```
dd if=/dev/zero of=/home/neo/somefile bs=1024 count=70
```

[RH-202](#)

But he is unable to create the file. Make the user can create the file less than 70K.

Answer and

Explanation:

Very Tricky question from redhat. Actually question is giving scenario to you to implement quota to neo user. You should apply the quota to neo user on /home that neo user shouldn't occupied space more than 70K.

1. vi /etc/fstab

`LABEL=/home /home ext3 defaults,usrquota 0 0`

To enable the quota on filesystem you should mount the filesystem with `usrquota` for user quota and `grpquota` for group quota.

2. `touch /home/aquota.user` Creating blank quota database file.

3. `mount -o remount /home` Remounting the /home with updated mount options. You can verify that /home is mounted with `usrquota` options or not using `mount` command.

4. `quotacheck -u /home` Initialization the quota on /home

5. `edquota -u neo /home` Quota Policy editor

See the snapshot

1 Disk quotas for user neo (uid 500):

2 Filesystem blocks soft hard inodes soft hard

4 /dev/mapper/vo-myvol 2 30 70 1 0 0

Can you set the hard limit 70 and soft limit as you think like 30.

QUESTION 19

Your system is giving error to load X window System. Make successfully boot your system in runlevel5.

Answer and

Explanation: While you load the X Window System, you will get the problem. Problem may caused by different error.

1. Check the /tmp is full ?

2. Check your quota, hard limit is already crossed ?

3. Check xfs service is running ?

4. Configure the Video card, Resolution, monitor type using: `system-configdisplay` (Most Probably in Redhat exam)

5. Edit the /etc/inittab to set default runlevel 5.

`id:5:initdefault:`

QUESTION 20

Your System is configured in 192.168.0.0/24 Network and your Domain nameserver is 192.168.0.254. Make successfully resolve to server1.example.com.

Answer and

Explanation:

Very Easy question, nameserver is specified in question,

1. vi /etc/resolv.conf

`nameserver 192.168.0.254`

2. host server1.example.com

QUESTION 21

One Package named zsh is dump on ftp://server1.example.com under /pub/updates directory and your FTP server is 192.168.0.254. Install the package zsh.

Answer and

Explanation:

1. rpm -ivh ftp://server1/example.com/pub/updates/zsh-*

or

1. Login to ftp server : ftp ftp://server1.example.com using anonymous user.

2. Change the directory: cd pub and cd updates

3. Download the package: mget zsh-*

4. Quit from the ftp prompt : bye

5. Install the package

6. rpm -ivh zsh-*

We can directly install the package from the ftp server or by downloading.

7. Verify Either package installed or not : rpm -q zsh

QUESTION 22

Some users home directory is shared from your system. Using showmount -e localhost command, the shared directory is not shown. Make access the shared users home directory.

Answer and

Explanation:

1. Verify the File whether Shared or not ? : cat /etc/exports

2. Start the nfs service: service nfs start

3. Start the portmap service: service portmap start

4. Make automatically start the nfs service on next reboot: chkconfig nfs on

5. Make automatically start the portmap service on next reboot: chkconfig portmap on

6. Verify Either sharing or not: showmount -e localhost

You will see that some shared directory will display

QUESTION 23

Add a new logical partition having size 100MB and create the /data which will be the mount point for the new partition.

Answer and

Explanation:

1. Use fdisk /dev/hda To create new partition.

2. Type n For New partitions

3. It will ask for Logical or Primary Partitions. Press l for logical.

4. It will ask for the Starting Cylinder: Use the Default by pressing Enter Key.

5. Type the Size: +100M You can Specify either Last cylinder of Size here.

6. Press P to verify the partitions lists and remember the partitions name.

7. Press w to write on partitions table.

8. Either Reboot or use partprobe command.

9. Use mkfs -t ext3 /dev/hda?

10. Or

11. `mke2fs -j /dev/hda?` To create ext3 filesystem.
12. `vi /etc/fstab`
13. Write:
14. `/dev/hda? /data ext3 defaults 0 0`
11. Verify by mounting on current Sessions also:
15. `mount /dev/hda? /data`

QUESTION 24

There is a server having 172.24.254.254 and 172.25.254.254. Your System lies on 172.24.0.0/16. Make successfully ping to 172.25.254.254 by Assigning following IP: 172.24.0.x Where x is your station number.

Answer and

Explanation:

1. Use `netconfig` command
2. Enter the IP Address as given station number by your examiner: example: 172.24.0.1
3. Enter Subnet Mask
4. Enter Default Gateway and primary name server
5. press on ok
6. `ifdown eth0`
7. `ifup eth0`
8. verify using `ifconfig`

In the lab server is playing the role of router, IP forwarding is enabled. Just set the Correct IP and gateway, you can ping to 172.25.254.254.

QUESTION 25

Successfully resolv to server1.example.com where your DNS server is 172.24.254.254

Answer and

Explanation:

1. `vi /etc/resolv.conf`
`nameserver 172.24.254.254`
2. `host server1.example.com`

On every clients, DNS server is specified in `/etc/resolv.conf`. When you request by name it tries to resolv from DNS server .

QUESTION 26

Your System is going use as a router for 172.24.0.0/16 and 172.25.0.0/16. Enable the IP Forwarding.

i. `echo "1" >/proc/sys/net/ipv4/ip_forward`

ii. `vi /etc/sysctl.conf`

`net.ipv4.ip_forward=1`

`/proc` is the virtual filesystem, containing the information about the running kernel.

To change the parameter of running kernel in running state you should modify the in `/proc`. From Next reboot the system, kernel will take the value from

`/etc/sysctl.conf`. If `net.ipv4.ip_forward` is 0, it disable the IP forwarding, if 1 then it enable the IP Forwarding.

Installation and Configuration Section, Introduction

Lab Scenario:

There are two networks 172.24.0.0/16 and 172.25.0.0/16. As well as there are two domains example.com on 172.24.0.0/16 network and cracker.org on 172.25.0.0/16 network. Your system is based on example.com domain.

Topic 2, Installation and Configuration Section (43 Questions)

QUESTION 27

There is a NFS server 192.168.0.254 and all required packages are dumped in /var/ftp/pub of that server and the /var/ftp/pub directory is shared. Install the Redhat Enterprise Linux 4 by creating following partitions:

/ 1000

/boot 200

/home 1000

/var 1000

/usr 4000

swap 2X256 (RAM SIZE)

Answer and

Explanation:

Note: Examiner will provide you the Installation startup CD. And here mentioned size may vary see on the exam paper.

1. Insert the CD on CD-ROM and start the system.
2. In Boot: Prompt type linux askmethod
3. It will display the language, keyboard selection.
4. It will ask you for the installation method.
5. Select the NFS Image from the list
6. It will ask the IP Address, Net mask, Gateway and Name Server. Select Use Dynamic IP Configuration: because DHCP Server will be configured in your exam lab.
7. It will ask for the NFS Server Name and Redhat Enterprise Linux Directory.

Specify the NFS Server: 192.168.0.254

Directory: /var/ftp/pub

8. After Connecting to the NFS Server Installation start in GUI. Go up to the partition screen by selecting the different Options.
9. Create the partition According to the Question because Size and what-partition should you create at installation time is specified in your question
10. Then select the MBR Options, time zone and go upto package selections.

It is another Most Important Time of installation. Due to the time limit, you should care about the installation packages. At Exam time you these packages are enough.

X-Window System

GNOME Desktop

(these two packages are generally not required)

Administration Tools.

System Tools

Windows File Server

FTP Servers

Mail Servers

Web Servers

Network Servers

Editors

Text Based Internet

Server Configuration Tools

Printing Supports

When installation will complete, your system will reboot. Jump for another Question.

QUESTION 28

There is a FTP server 192.168.0.254 and all required packages are dumped in /var/ftp/pub of that server and anonymous login is enabled. Install the Redhat Enterprise Linux 4 as an anonymous by creating following partitions:

/ 1000

/boot 200

/home 1000

/var 1000

/usr 4000

swap 2X256 (RAM SIZE)

Answer:

Note: Examiner will provide you the Installation startup CD. And here mentioned size may vary see on the exam paper.

1. Insert the CD on CD-ROM and start the system.

2. In Boot: Prompt type linux askmethod

3. It will display the Language, keyboard selection.

4. It will ask you for the installation method.

5. Select the FTP from the list

6. It will ask the IP Address, Net mask, Gateway and Name Server. Select Use Dynamic IP Configuration: because DHCP Server will be configured in your exam lab.

7. It will ask for the FTP site name and Redhat Enterprise Linux Directory.

Specify the FTP Server: 192.168.0.254

Directory: pub Because anonymous login on /var/ftp.

8. After Connecting to the FTP Server Installation will start. Go up to the partition screen by selecting the different Options.

9. Create the partition According to the Question because Size and what-what partition should you create at installation time is specified in your question

10. Then select the MBR Options, time zone and go upto package selections.

It is another Most Important Time of installation. Due to the time limit, you should be care about the installation packages. At Exam time you these packages are enough.

X-Window System

GNOME Desktop

(these two packages are generally not required)

Administration Tools.

System Tools

Windows File Server

FTP Servers

Mail Servers

Web Servers

Network Servers

Editors

Text Based Internet

Server Configuration Tools

Printing Supports

When installation will complete, your system will reboot. Jump for another Question.

QUESTION 29

There is a HTTP server 192.168.0.254 and all required packages are dumped in /var/www/html/rhel4 of that server. Install the Redhat Enterprise Linux 4 by creating following partitions:

/ 1000

/boot 200

/home 1000

/var 1000

/usr 4000

swap 2X256 (RAM SIZE)

Answer:

Note: Examiner will provide you the Installation startup CD. And here mentioned size may vary see on the exam paper.

1. Insert the CD on CD-ROM and start the system.
2. In Boot: Prompt type linux askmethod
3. It will display the Language, keyboard selection.
4. It will ask you for the installation method.
5. Select the HTTP from the list
6. It will ask the IP Address, Net mask, Gateway and Name Server. Select Use Dynamic IP Configuration: because DHCP Server will be configured in your exam lab.
7. It will ask for the Web site name and Redhat Enterprise Linux Directory.

Specify the HTTP Server: 192.168.0.254

Directory: rhel4 Because Default Directory for http is /var/www/html

8. After Connecting to the HTTP Server Installation start. Go upto the partition screen by selecting the different Options.

9. Create the partition According to the Question because Size and what-what partition should you create at installation time is specified in your question

10. Then select the MBR Options, time zone and go upto package selections.

It is another Most Important Time of installation. Due to the time limit, you should be care about the installation packages. At Exam time you these packages are enough.

X-Window System

GNOME Desktop

(these two packages are generally not required)

Administration Tools.

System Tools

Windows File Server
FTP Servers
Mail Servers
Web Servers
Network Servers
Editors
Text Based Internet
Server Configuration Tools
Printing Supports

When installation will complete, your system will reboot. Jump for another Question.

QUESTION 30

Create a RAID Device /dev/md0 by creating equal two disks from available free space on your harddisk and mount it on /data.

Answer and

Explanation:

Redhat Enterprise Linux 4 Supports the RAID LEVEL 0, RAID LEVEL 1, RAID LEVEL 5 and RAID LEVEL 6 at installation time. You can create it at installation time later no need to type lots of commands for RAID.

At Installation Time:

- ii. Create the partitions using diskdruid.
- iii. Create the Partitions having File system Type Software RAID.
- iv. Click on RAID button
- v. Type the Mount Point
- vi. Select File system type
- vii. Select RAID Level
- viii. Select Partitions/disks as a member of RAID.
- viii. Click on ok

After Installation: We can create the RAID Device after Installation on command-line.

1. Create the Two partitions having equal size. (Specify the Size using Cylinder, find the remaining cylinder and divide by 2).
 2. Change the Partition ID to fd (Linux raid Autodetect) by typing t.
 3. Type w To write on partitions table.
 4. Use partprobe command to synchronic the partition table.
 5. Use: mdadm --create /dev/md0 --level=1 --raid-devices=2 /dev/hda? /dev/hda?
 6. Verify the RAID: mdadm --detail /dev/md0
 7. mkfs -t ext3 /dev/md0
 8. mount /dev/md0 /data
 9. vi /etc/fstab
/dev/md0 /data ext3 defaults 0 0
 10. Verify mounting devices using mount command.
-

QUESTION 31

Create the user named user1, user2, user3

Answer and

Explanation:

2. useradd user1
3. useradd user2
4. useradd user3
5. passwd user1
6. passwd user2
7. passwd user3

We create the user using useradd command and we change the password of user using passwd command. If you want to set the blank password use: passwd -d username.

QUESTION 32

Create the group named training

Answer and

Explanation:

1. groupadd training

To create a group we use the groupadd command.

Verify from: cat /etc/group whether group added or not?

QUESTION 33

Make user1, user2 and user3 belongs to training group.

Answer and

Explanation:

1. usermod -G training user1
2. usermod -G training user2
3. usermod -G training user3
4. Verify from : cat /etc/group

There are two types of group, I) primary group II) Secondary or supplementary group.

I) Primary Group: Primary group defines the files/directories and process owner group there can be only one primary group of one user.

II) Secondary Group is used for permission. Where permission are defined for group members, user can access by belonging to that group.

Here user1, user2 and user3 belong as supplementary to training group. So these users get the permission of group member.

QUESTION 34

Change the Group Owner of /data to training group.

Answer and

Explanation:

chown or chgrp command is used to change the ownership.

Syntax of chown: chown [-R] username:groupname file/directory

Syntax of chgrp: chgrp [-R] groupname file/directory

Whenever user creates the file or directory, the owner of that file/directory automatically will be that user and that user's primary group name.

To change group ownership

1. `chgrp training /data` Which set the Group Ownership to training
or

`chown root.training /data` Which set the user owner to root and group owner to training group.

Verify /data using: `ls -ld /data`

You will get: `drwxr-xr-x 2 root training`

QUESTION 35

Give Full Permission to owner user and owner group member but no permission to others on /data.

Answer and

Explanation:

We can change the permission of file/directory either character symbol method or numeric method.

Permission:

r-Read

w-Write

x-Execute

Permission Category

u- Owner User

g- Owner Group

o- Others

Operators

+ Add the Permissions

- Remove the Permissions

= Assigns the Permissions

Numeric Method:

4 Read

2 Write

1 Execute

Total: 7, total for owner user, owner group member and for others : 777

1. `chmod u+rwx /data`

2. `chmod g+rwx /data`

3. `chmod o-rwx /data`

or

`chmod 770 /data`

4. Verify the /data : `ls -ld /data`

5. You will get `drwxrwx---`

QUESTION 36

Whenever user creates the file on /data make automatically owner group is training.

Answer and Explanation

[RH-202](#)

By default, whenever user ie. user1, user2, user3 creates the file on /data user owner is user who created and group owner is primary group of user.

There is one Special Permission SGID bit on Directory. Whenever you set the SGID bit on directory, When users creates the file/directory automatically owner group will be same as a parent.

1. `chmod g+s /data`
 2. Verify using: `ls -ld /data`
- You will get: `drwxrws---`

QUESTION 37

Make sure on /data that only the owner user can removes files/directories.

Answer and

Explanation:

By default user1 can remove user2's files due to directory permission to group member. We can prevent of deleting files from others users using Sticky Bits.

1. `chmod o+t /data`
 2. Verify /data: `ls -ld /data`
- You will get: `drwxrwx-T`

QUESTION 38

Add a user named user4 and make primarily belongs to training group. As well account should expire on 30 days from today.

Answer and

Explanation:

1. `useradd username`
 2. `passwd username`
 3. `usermod -e "date"`
- example: `usermod -e "12 Feb 2006" user4`
- Verify: `chage -l user4`

QUESTION 39

One New Kernel is released named kernel-hugemem. Kernel is available on `ftp://server1.example.com` under pub directory for anonymous. Install the Kernel and make previous new kernel is default to boot System.

Answer and Explanation

1. `rpm -ivh ftp://server1.example.com/pub/kernel-hugemem-*`
2. `vi /etc/grub.conf`

Set the default to new kernel

`default=0`

Example of `/etc/grub.conf`

`default=0`

`timeout=5`

`splashimage=(hd0,0)/grub/splash.xpm.gz`

`hiddenmenu`

`title Red Hat Enterprise Linux ES (2.6.9-5.ELhugemem)`

`root (hd0,0)`

```
kernel /vmlinuz-2.6.9-5.ELhugemem ro root=LABEL=/1 rhgb quiet
initrd /initrd-2.6.9-5.ELhugemem.img
title Red Hat Enterprise Linux ES (2.6.9-5.EL)
root (hd0,0)
kernel /vmlinuz-2.6.9-5.EL ro root=LABEL=/1 rhgb quiet
initrd /initrd-2.6.9-5.EL.img
rpm command is used to install, update and remove the rpm package. -ivh option is
install, verbose, and display the hash mark.
```

QUESTION 40

One Package named zsh is dump on ftp://server1.example.com under pub directory. Install the package from ftp server.

Answer and

Explanation:

1. rpm -ivh ftp://server1.example.com/pub/zsh-*

2. Package will install

rpm command is used to install, update and remove the package, -i means install, -v means verbose and -h means display the hash mark.

QUESTION 41

There are Mail servers, Web Servers, DNS Servers and Log Server. Log Server is already configured. You should configure the mail server, web server and dns server to redirect the logs to log server.

Answer and

Explanation:

According to question, log server is already configured. We have to configure the mail, web and dns server for log redirection.

In mail, web and dns server:

1. vi /etc/syslog.conf

mail.* @logserveraddress

2. service syslog restart

mail is the facility and * means the priority. It redirects all related to mail into log server.

QUESTION 42

Raw (Model) printer named printer1 is installed and shared on 192.168.0.254. You should install the shared printer on your PC to connect shared printer using IPP Protocols.

Answer and

Explanation:

IPP(Internet Printing Protocol), used to manage the printers on browser. We can Install the printer either through: system-confing-printer tool or through Browser.

1. Open the browser and Type on address: http://localhost:631 CUPS

(Common Unix Printing System) used the IPP protocol. CUPS use the 631 port.

2. Click on Manage Printer.

3. Click on Add Printer.

4. Type Printer name, Location, Description.
5. Select Device for bb. (Select IPP).
6. Device URL: `ipp://192.168.0.254/ipp/` queue name Same printer name of shared printer.
7. Select Model/Driver RAW printer.
8. `service cups restart`

QUESTION 43

You are administrator of Certkiller network. First time you are going to take the full backup of all user's home directory. Take the full backup of /home on /tmp/back file.

Answer and

Explanation:

1. `dump -0u -f /tmp/back /dev/hda4`

`dump` is the standard backup utility. According to the questions, fullback should take. `-0` means fullback, `-u` means update the `/etc/dumpdates` which maintains the backup record and `-f` means filename. If you are directly taking backup in other device, you can specify the device name.

i.e `dump -0u -f /dev/st0 /dev/hda4`. Where `hda4` is a separate partition mounted on /home.

QUESTION 44

You are working as a System Administrator at Certkiller . Your Linux Server crashed and you lost every data. But you had taken the full backup of user's home directory and other System Files on /dev/st0, how will you restore from that device?

Answer and

Explanation:

1. Go to on that directory where you want to restore.
2. `restore -rf /dev/st0`

To restore from backup we use the restore command. Here backup will restore from /dev/st0 on current Directory.

QUESTION 45

Add a job on Cron schedule to display Hello World on every two Seconds in terminal 8.

Answer and Explanation

1. `cat >schedule`
`*/2 * * * * /bin/echo "Hello World"`
2. `crontab schedule`
3. Verify using: `crontab -l`
4. `service crond restart`

Cron helps to schedule on recurring events. Pattern of Cron is:

Minute Hour Day of Month Month Day of Week Commands

0-59 0-23 1-31 1-12 0-7 where 0 and 7 means

Sunday.

Note `*` means every. To execute the command on every two minutes `*/2`.

To add the scheduled file on cron job: crontab filename

To List the Cron Shedule: crontab -l

To Edit the Schedule: crontab -e

To Remove the Schedule: crontab -r

QUESTION 46

By Default Scheduling on Cron allowed to all users. Deny to all users except root to run cron schedule.

Answer and Explanation

1. vi /etc/cron.allow

root

or

vi /etc/cron.deny

Write all user name to deny.

/etc/cron.allow, /etc/cron.deny file is used to control users to allow or deny. If

/etc/cron.allow file is created only that users are allowed to run cron schedule.

Another way to deny to users is /etc/cron.deny write all user name on single line.

QUESTION 47

Add a cron schedule to take full backup of /home on every day at 5:30 pm to /dev/st0 device.

Answer and

Explanation:

1. vi /var/schedule

30 17 * * * /sbin/dump -0u /dev/st0 /dev/hda7

2. crontab /var/schedule

3. service crond restart

We can add the cron schedule either by specifying the scripts path on /etc/crontab file or by creating on text file on crontab pattern.

cron helps to schedule on recurring events. Pattern of cron is:

Minute Hour Day of Month Month Day of Week Commands

0-59 0-23 1-31 1-12 0-7 where 0 and 7 means Sunday.

Note * means every. To execute the command on every two minutes */2.

QUESTION 48

One NIS Domain named rhce.com is configured in your lab, server is

192.168.0.254. rhce100, rhce200, rhce300 user are created on domain server.

Make your system as a member of rhce.com domain. Make sure that when nis user

login in your system automatically mount the home directory. Home directory is

separately shared on server eg /home/stationx/ where x is you station number.

Answer and

Explanation:

1. use the authconfig or system-config-authentication

2. Select the [*] USE NIS

3. Type the NIS Domain: rhce.com

4. Type Server 192.168.0.254 then click on next and ok

5. You will get a ok message.
 6. vi /etc/auto.master and write at the end of file
/home /etc/auto.home --timeout=60
 7. vi /etc/auto.home and write
* -rw,soft,intr 192.168.0.254:/home/stationx/&
- Note: please specify your station number in the place of x.
8. Service autofs restart
 9. Login as the rhce1 or rhce2 or rhce3 on another terminal will be Success.

According to question, rhce.com domain is already configured. We have to make a client of rhce.com domain and automatically mount the home directory on every client. To make a member of domain, we use the autheconfig or system-configauthentication command. There are lots of authentication server i.e NIS, LDAP, SMB etc. NIS is a RPC related Services, no need to configure the DNS, we should specify the NIS server address.

Here Automount feature is available. When user tried to login, home directory will automatically mount. The automount service used the /etc/auto.master file. On /etc/auto.master file we specified the mount point the configuration file for mount point.

QUESTION 49

There are three Disk Partitions /dev/hda8, /dev/hda9, /dev/hda10 having size 100MB of each partition. Create a Logical Volume named testvolume1 and testvolume2 having a size 250MB. Mount each Logical Volume on lvmtest1, lvmtest2 directory.

Answer and

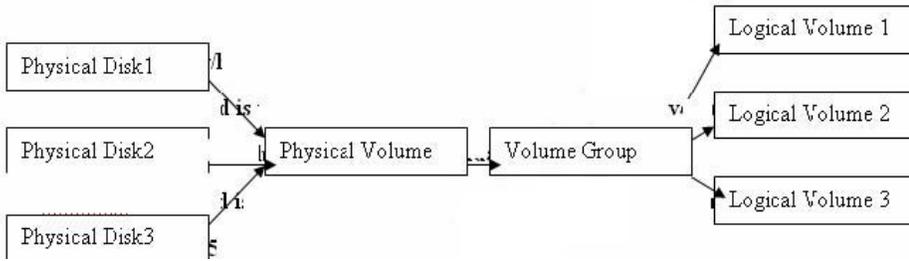
Explanation:

Steps of Creating LVM:

1. pvcreate /dev/hda8 /dev/hda9 /dev/hda10
pvdisplay command is used to display the information of physical volume.
2. vgcreate test0 /dev/hda8 /dev/hda9 /dev/hda10
vgdisplay command is used to display the information of Volume Group.
3. lvcreate -L 250M -n testvolume1 test0
lvdisplay command is used to display the information of Logical Volume.
4. lvcreate -L 250M -n testvolume2 test0
5. mkfs -t ext3 /dev/test0/testvolume1
6. mkfs -t ext3 /dev/test0/testvolume2
7. mkdir /lvmtest1
8. mkdir /lvmtest2
9. mount /dev/test0/testvolume1 /lvmtest1
10. mount /dev/test0/testvolume2 /lvmtest2
11. vi /etc/fstab
/dev/test0/testvolume2 /lvmtest2 ext3 defaults 0 0
/dev/test0/testvolume1 /lvmtest1 ext3 defaults 0 0

To create the LVM(Logical Volume Manager) we required the disks having '8e' Linux LVM type. First we should create the physical Volume, then we can create the Volume group from disks belongs to physical Volume. lvcreate command is used

to create the logical volume on volume group. We can specify the size of logical volume with -L option and name with -n option.



QUESTION 50

One Logical Volume named /dev/test0/testvolume1 is created. The initial Size of that disk is 100MB now you required more 200MB. Increase the size of Logical Volume, size should be increase on online.

Answer and

Explanation:

1. `lvextend -L+200M /dev/test0/testvolume1`

Use `lvdisplay /dev/test0/testvolume1`

2. `ext2online -d /dev/test0/testvolume1`

`lvextend` command is used the increase the size of Logical Volume. Other command `lvresize` command also here to resize. And to bring increased size on online we use the `ext2online` command.

QUESTION 51

We are working on /data initially the size is 2GB. The /dev/test0/lvtestvolume is mount on /data. Now you required more space on /data but you already added all disks belong to physical volume. You saw that you have unallocated space around 5 GB on your harddisk. Increase the size of lvtestvolume by 5GB.

Answer and Explanation.

1. Create a partition having size 5 GB and change the syste id '8e'.

2. use `partprobe` command

3. `pvcreate /dev/hda9` Suppose your partition number is hda9.

4. `vgextend test0 /dev/hda9` `vgextend` command add the physical disk on volume group.

5. `lvextend -L+5120M /dev/test0/lvtestvolume`

6. verify using `lvdisplay /dev/test0/lvtestvolume`.

QUESTION 52

Install the Redhat Linux RHEL 4 through NFS. Where your Server is server1.example.com having IP 192.168.0.254 and shared /var/ftp/pub. The size of the partitions are listed below:

/ 1048

/home 1028

/boot 512

/var 1028

/usr 2048

Swap -> 1.5 of RAM Size

/data configure the RAID Level 0 of remaining all free space.

After completing the installation through NFS solve the following questions. There are two networks 192.168.0.0/24 and 192.168.1.0/24. As well as there are two domains example.com on 192.168.0.0/24 network and cracker.org on 192.168.1.0/24 network. Your system is based on example.com domain.

Answer and

Explanation:

1. Insert the CD on CD-ROM and start the system.
2. In Boot: Prompt type linux askmethod
3. It will display the language, keyboard selection.
4. It will ask you for the installation method.
5. Select the NFS Image from the list
6. It will ask the IP Address, Net mask, Gateway and Name Server. Select Use Dynamic IP Configuration: because DHCP Server will be configured in your exam lab.
7. It will ask for the NFS Server Name and Redhat Enterprise Linux Directory.
Specify the NFS Server: 192.168.0.254
Directory: /var/ftp/pub
8. After Connecting to the NFS Server Installation start in GUI. Go up to the partition screen by selecting the different Options.
9. Create the partition According to the Question because Size and what-what partition should you create at installation time is specified in your question
10. Create the two RAID partitions having equal size of remaining all free space.
11. Click on RAID button
12. Type mount point /data
13. Select RAID Level 0
14. Click on ok
15. Then select the MBR Options, time zone and go upto package selections.
It is another Most Important Time of installation. Due to the time limit, you should care about the installation packages. At Exam time you these packages are enough.

X-Window System

GNOME Desktop

(these two packages are generally not required)

Administration Tools.

System Tools

Windows File Server

FTP Servers

Mail Servers

Web Servers

Network Servers

Editors

Text Based Internet

Server Configuration Tools

Printing Supports

When installation will complete, your system will reboot. Jump for another Question.

QUESTION 53

Fill up the Form through <http://server1.example.com/form.php>

Answer and

Explanation:

1. Open the Browser and type the above URL.
 2. Fill the form as required all information.
-

QUESTION 54

One Domain RHCE is configured in your lab, your domain server is server1.example.com. nisuser2001, nisuser2002, nisuser2003 user are created on your server 192.168.0.254:/rhome/stationx/nisuser2001. Make sure that when NIS user login in your system automatically mount the home directory. Home directory is separately shared on server [/rhome/stationx/](http://192.168.0.254:/rhome/stationx/) where x is your Station number.

Answer and

Explanation:

1. use the authconfig or system-config-authentication
2. Select the [*] USE NIS
3. Type the NIS Domain: RHCE
4. Type Server 192.168.0.254 then click on next and ok
5. You will get a ok message.
6. Create a Directory [/rhome/stationx](http://192.168.0.254:/rhome/stationx/) where x is your station number.
6. vi [/etc/auto.master](http://192.168.0.254:/etc/auto.master) and write at the end of file
[/rhome/stationx /etc/auto.home --timeout=60](http://192.168.0.254:/rhome/stationx /etc/auto.home --timeout=60)
7. vi [/etc/auto.home](http://192.168.0.254:/etc/auto.home) and write
* -rw,soft,intr 192.168.0.254:/rhome/stationx/&

Note: please specify your station number in the place of x.

8. Service autofs restart
9. Login as the nisuser2001 or nisuser2002 on another terminal will be Success.

According to question, RHCE domain is already configured. We have to make a client of RHCE domain and automatically mount the home directory on your system. To make a member of domain, we use the authconfig or system-config-authentication command. There are lots of authentication server i.e NIS, LDAP, SMB etc. NIS is a RPC related Services, no need to configure the DNS, we should specify the NIS server address.

Here Automount feature is available. When user tried to login, home directory will automatically mount. The automount service used the [/etc/auto.master](http://192.168.0.254:/etc/auto.master) file.

On [/etc/auto.master](http://192.168.0.254:/etc/auto.master) file we specified the mount point the configuration file for mount point.

QUESTION 55

Create the group named sysadmin.

Answer and Explanation

1. groupadd sysadmin
groupadd command is used to create the group and all group information is stored in [/etc/group](http://192.168.0.254:/etc/group) file.

QUESTION 56

Create the user named jane and john.

Answer and

Explanation:

1. useradd jane
2. useradd john

useradd command is used to create the user. All user's information stores in /etc/passwd and user's shadow password stores in /etc/shadow.

QUESTION 57

Raw printer named printerx where x is your station number is installed and shared on server1.example.com. Install the shared printer on your PC to connect shared printer using IPP Protocols. Your server is 192.168.0.254.

Answer and

Explanation:

1. Open the Browser either firefox or links
 2. Type : http://localhost:631
 3. Click on Manage Printer
 4. Click on Add Printer
 5. Type Queue name like stationx and click on continue
 6. Type Device type or printing Protocol: i.e Internet printing Protocol
 7. Click on Continue
 8. Type Device URL: ipp://server1.example.com/printers/printerx
 9. Click on Continue
 10. Select RAW Model printer
 11. Click on Continue
 12. Test by sending the printing job
-

QUESTION 58

Make Secondary belongs the both users on sysadmin group.

Answer and

Explanation:

1. usermod -G sysadmin john
2. usermod -G sysadmin jane
3. Verify by reading /etc/group file

Using usermod command we can make user belongs to different group. There are two types of group one primary and another is secondary. Primary group can be only one but user can belongs to more than one group as secondary.

usermod -g groupname username To change the primary group of the user

usermod -G groupname username To make user belongs to secondary group.

QUESTION 59

Create the user named eric but eric should not belong to the sysadmin group.

Answer and

Explanation:

1. useradd eric

Very tricky question given to you that this user should not belongs to sysadmin group.

QUESTION 60

Create the directory /data and group owner should be the sysadmin group.

Answer and

Explanation:

1. chgrp sysadmin /data

2. Verify using ls -ld /data command. You should get like

```
drwxr-x--- 2 root sysadmin 4096 Mar 16 17:59 /data
```

chgrp command is used to change the group ownership of particular files or directory.

Another way you can use the chown command.

```
chown root:sysadmin /data
```

QUESTION 61

Make on /data that only the user owner and group owner member can fully access.

Answer and

Explanation:

1. chmod 770 /data

2. Verify using : ls -ld /data

Preview should be like:

```
drwxrwx--- 2 root sysadmin 4096 Mar 16 18:08 /data
```

To change the permission on directory we use the chmod command. According to the question that only the owner user (root) and group member (sysadmin) can fully access the directory so: chmod 770 /data

QUESTION 62

Who ever creates the files/directories on /data group owner should be automatically should be the same group owner of /data.

Answer and

Explanation:

1. chmod g+s /data

2. Verify using: ls -ld /data

Permission should be like:

```
drwxrws--- 2 root sysadmin 4096 Mar 16 18:08 /data
```

If SGID bit is set on directory then who every users creates the files on directory group owner automatically the owner of parent directory.

To set the SGID bit: chmod g+s directory

To Remove the SGID bit: chmod g-s directory

QUESTION 63

Your System is going to use as a Router for two networks. One Network is 192.168.0.0/24 and Another Network is 192.168.1.0/24. Both network's IP address has assigned. How will you forward the packets from one network to another

network?

Answer and

Explanation:

1. echo "1" >/proc/sys/net/ipv4/ip_forward

2. vi /etc/sysctl.conf

net.ipv4.ip_forward = 1

According to questions: your system should be ready to forward the packets from 0 network to 1 and vice versa. For that you should enable the IP Forwarding. For current session you can enable by modifying the running kernel value (/proc file system). To enable automatically you should write in /etc/sysctl.conf

QUESTION 64

One New Kernel is released named kernel-2.6.9-11. Kernel is available on ftp://server1.example.com/pub/updates directory for anonymous. Install the Kernel and make the kernel-2.6.9-5 default.

Answer and

Explanation:

1. rpm -ivh ftp://server1.example.com/pub/updates/kernel-2.6.9-11.i686.rpm

2. vi /etc/grub.conf

default=1 Change this value to 1

timeout=5

splashimage=(hd0,0)/grub/splash.xpm.gz

hiddenmenu

title Red Hat Enterprise Linux ES (2.6.9-11)

root (hd0,0)

kernel /vmlinuz-2.6.9-11.EL ro root=LABEL=/ rhgb quiet

initrd /initrd-2.6.9-11.EL.img

title Red Hat Enterprise Linux ES (2.6.9-5.EL)

root (hd0,0)

kernel /vmlinuz-2.6.9-5.EL ro root=LABEL=/ rhgb quiet

initrd /initrd-2.6.9-5.EL.img

According question that kernel is available to anonymous user. You can directly install from the ftp server using rpm command.

When you install the kernel, it will write on /etc/grub.conf file. You can set the default kernel by changing the default value. See on the output of /etc/grub.conf file that new kernel is on first title so it's index is 0 and previous kernel's index is 1.

QUESTION 65

Install the dialog-*

Answer and

Explanation:

Questions asking you to install the dialog package from the server. In your Lab FTP server as well as NFS server are configured. You can install either through FTP or NFS.

1. Just Login to server1.example.com through FTP: ftp server1.example.com

2. Enter to pub directory: cd pub

3. Enter to RedHat/RPMS: `cd RedHat/RPMS`
 4. Download the Package: `mget dialog-*`
 5. Logout from the FTP server: `bye`
 6. Install the package: `rpm -ivh dialog-*`
 7. Verify the package either installed or not: `rpm -q dialog`
-

QUESTION 66

Install the Redhat Linux RHEL 4 through NFS. Where your Server is `server1.example.com` having IP `172.24.254.254` and shared `/var/ftp/pub`. The size of the partitions are listed below:

`/ 1048`

`/home 1028`

`/boot 512`

`/var 1028`

`/usr 2048`

Swap -> 1.5 of RAM Size

`/data` configure the RAID Level 0 of remaining all free space.

After completing the installation through NFS solve the following questions. There are two networks `172.24.0.0/16` and `172.25.0.0/16`. As well as there are two domains `example.com` on `172.24.0.0/16` network and `cracker.org` on `172.25.0.0/16` network.

Your system is based on `example.com` domain.

Answer and

Explanation:

1. Insert the CD on CD-ROM and start the system.
2. In Boot: Prompt type `linux askmethod`
3. It will display the language, keyboard selection.
4. It will ask you for the installation method.
5. Select the NFS Image from the list
6. It will ask the IP Address, Net mask, Gateway and Name Server. Select Use Dynamic IP Configuration: because DHCP Server will be configured in your exam lab.
7. It will ask for the NFS Server Name and Redhat Enterprise Linux Directory. Specify the NFS Server: `172.24.254.254`
Directory: `/var/ftp/pub`
8. After Connecting to the NFS Server Installation start in GUI. Go up to the partition screen by selecting the different Options.
9. Create the partition According to the Question because Size and what-what partition should you create at installation time is specified in your question
10. Create the two RAID partitions having equal size of remaining all free space.
11. Click on RAID button
12. Type mount point `/data`
13. Select RAID Level 0
14. Click on ok
15. Then select the MBR Options, time zone and go upto package selections. It is another Most Important Time of installation. Due to the time limit, you should care about the installation packages. At Exam time you these packages are enough.

X-Window System

GNOME Desktop

(these two packages are generally not required)

Administration Tools.

System Tools

Windows File Server

FTP Servers

Mail Servers

Web Servers

Network Servers

Editors

Text Based Internet

Server Configuration Tools

Printing Supports

When installation will complete, your system will reboot. Jump for another Question.

QUESTION 67

Create the user named eric and deny to interactive login.

Answer and

Explanation:

1. useradd eric

2. passwd eric

3. vi /etc/passwd

4. eric:x:505:505::/home/eric:/sbin/nologin

Which shell or program should start at login time is specified in /etc/passwd file. By default Redhat Enterprise Linux assigns the /bin/bash shell to the users. To deny the interactive login, you should write /sbin/nologin or /bin/false instead of login shell.

QUESTION 68

/data Directory is shared from the server1.example.com server. Mount the shared directory that:

a. when user try to access, automatically should mount

b. when user doesn't use mounted directory should unmount automatically after 50 seconds.

c. Shared directory should mount on /mnt/data on your machine.

Answer and

Explanation:

1. vi /etc/auto.master

/mnt /etc/auto.misc --timeout=50

2. vi /etc/auto.misc

3. data -rw,soft,intr server1.example.com:/data

4. service autofs restart

5. chkconfig autofs on

When you mount the other filesystem, you should unmount the mounted filesystem, Automount feature of linux helps to mount at access time and after certain seconds,

when user unaccess the mounted directory, automatically unmount the filesystem.
/etc/auto.master is the master configuration file for autofs service. When you start the service, it reads the mount point as defined in /etc/auto.master.

QUESTION 69

Install the Redhat Linux RHEL 4 through NFS. Where your Server is server1.example.com having IP 172.24.254.254 and shared /var/ftp/pub. The size of the partitions are listed below:

/ -> 1048

/home -> 1028

/boot -> 512

/var -> 1028

/usr -> 2048

Swap -> 1.5 of RAM Size

/document -> configure the RAID Level 0 of remaining all free space.

After completing the installation through NFS solve the following questions. There are two networks 172.24.0.0/16 and 172.25.0.0/16. As well as there are two domains example.com on 172.24.0.0/16 network and cracker.org on 172.25.0.0/16 network.

Your system is based on example.com domain.

Answer and Explanation:

1. Insert the CD on CD-ROM and start the system.
2. In Boot: Prompt type linux askmethod
3. It will display the language, keyboard selection.
4. It will ask you for the installation method.
5. Select the NFS Image from the list
6. It will ask the IP Address, Net mask, Gateway and Name Server. Select Use Dynamic IP Configuration: because DHCP Server will be configured in your exam lab.
7. It will ask for the NFS Server Name and Redhat Enterprise Linux Directory. Specify the NFS Server: 172.24.254.254
Directory: /var/ftp/pub
8. After Connecting to the NFS Server Installation start in GUI. Go up to the partition screen by selecting the different Options.
9. Create the partition According to the Question because Size and what-what partition should you create at installation time is specified in your question
10. Create the two RAID partitions having equal size of remaining all free space.
11. Click on RAID button
12. Type mount point /data
13. Select RAID Level 0 RH202
14. Click on ok
15. Then select the MBR Options, time zone and go upto package selections. It is another Most Important Time of installation. Due to the time limit, you should care about the installation packages. At Exam time you these packages are enough.
X-Window System
GNOME Desktop
(these two packages are generally not required)

Administration Tools.

System Tools

Windows File Server

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Printing Supports

When installation will complete, your system will reboot. Jump for another Question.