EX200.exam

EX200

Red Hat Certified System Administrator –RHCSA

Exam A

QUESTION 1
SIMULATION

Configure /var/tmp/fstab Permission.

Copy the file /etc/fstab to /var/tmp/fstab. Configure var/tmp/fstab permissions as the following:
Owner of the file /var/tmp/fstab is Root, belongs to group root
File /var/tmp/fstab cannot be executed by any user
User natasha can read and write /var/tmp/fstab
User harry cannot read and write /var/tmp/fstab
All other users (present and future) can read var/tmp/fstab.

Correct Answer: See explanation below.
Section: (none)
Explanation

Explanation/Reference:
Explanation: cp /etc/fstab /var/tmp/
/var/tmp/fstab view the owner setfacl -m u:natasha:rw- /var/tmp/fstab setfacl -m u:haryy:--- /var/tmp/fstab

Use getfacl /var/tmp/fstab to view permissions

QUESTION 2
SIMULATION

Configure a cron Task.

User natasha must configure a cron job, local time 14:23 runs and executes: */bin/echo hiya every day.

Correct Answer: See explanation below.
Section: (none)
Explanation

Explanation/Reference:
Explanation: crontab –e –u natasha
23 14/bin/echo hiya
crontab -l -u natasha // view
systemctlenable crond
systemcdlrestart crond

QUESTION 3
SIMULATION

Create a Shared Directory.

Create a shared directory /home/admins, make it has the following characteristics:
/home/admins belongs to group adminuser
This directory can be read and written by members of group adminuser Any files created in /home/ admin, group automatically set as adminuser.

Correct Answer: See explanation below.
Section: (none)
Explanation

Explanation/Reference:
Explanation: mkdir /home/admins
chgrp -R adminuser /home/admins
chmodg+w /home/admins
chmodg+s /home/admins

QUESTION 4
SIMULATION

Install the Kernel Upgrade.

Install suitable kernel update from:
http://server.domain11.example.com/pub/updates.

Following requirements must be met:
Updated kernel used as the default kernel of system start-up.
The original kernel is still valid and can be guided when system starts up.

Correct Answer: See explanation below.
Section: (none)
Explanation

Explanation/Reference:

Explanation: Using the browser open the URL in the question, download kernel file to root or home directory.
uname –r// check the current kernel version
rpm –ivh kernel-*.rpm
vi /boot/grub.conf// check

Some questions are: Install and upgrade the kernel as required. To ensure that grub2 is the default item for startup.
Yum repo : http://content.example.com/rhel7.0/x86-64/errata

OR

uname -r // check kernel

Yum-config-manager --add-repo="http://content.example.com/rhel7.0/x86-64/ errata"

Yum clean all
Yum list kernel// install directly
Yum -y install kernel// stuck with it, do not pipe! Please do not pipe!

Default enable new kernel grub2-editenv list// check
Modify grub2-set-default "kernel full name"
Grub2-mkconfig –o/boot/grub2/grub.cfg// Refresh

QUESTION 5
SIMULATION

Binding to an external validation server.

System server.domain11.example.com provides a LDAP validation service, your system should bind to this service as required:
Base DN of validation service is dc=example,dc=com
LDAP is used for providing account information and validation information Connecting and using the certification of http://server.domain11.example.com/pub/
EXAMPLE-CA-CERT to encrypt
After the correct configuration, ldapuser1 can log into your system, it does not have HOME directory until you finish autofs questions, ldapuser1 password is
password.

Correct Answer: See explanation below.
Section: (none)
Explanation

Explanation/Reference:
Explanation: yum -y install sssd authconfig-gtk krb5-workstation authconfig-gtk // open the graphical interface

Modify user account database to ldap, fill up DN and LDAP SERVER as questions required, use TLS to encrypt connections making tick, write http://

server.domain11.example.com/pub/EXAMPLE-CA-CERT to download ca, authentication method choose ldap password.
You can test if the ldapuser is added by the following command:

Id ldapuser1

Note: user password doesn't not need to set

QUESTION 6
SIMULATION

Configure NTP.

Configure NTP service, Synchronize the server time, NTP server: classroom.example.com

Correct Answer: See explanation below.
Section: (none)
Explanation

Explanation/Reference:
Explanation: Configure the client:

Yum -y install chrony
Vim /etc/chrony.conf

Add: server classroom.example.com iburst
Start: systemctl enable chronyd
systemctl restart chronyd
Validate: timedatectl status

QUESTION 7
SIMULATION

Configure autofs.

Configure the autofs automatically mount to the home directory of LDAP, as required:
server.domain11.example.com use NFS to share the home to your system. This file system contains a pre

configured home directory of user ldapuserX.
Home directory of ldapuserX is:
server.domain11.example.com /home/guests/ldapuser

Home directory of ldapuserX should automatically mount to the ldapuserX of the local /home/guests Home directory's write permissions must be available for users

ldapuser1's password is password

Correct Answer: See explanation below.
Section: (none)
Explanation

Explanation/Reference:
Explanation: yum install -y autofs
mkdir /home/rehome
/etc/auto.master
/home/rehome/etc/auto.ldap

Keep then exit

cp /etc/auto.misc /etc/auto.ldap
/etc/auto.ldap
ldapuserX -fstype=nfs,rw server.domain11.example.com:/home/guests/

Keep then exit

systemctl start autofs
systemctl enable autofs
su - ldapuserX// test

If the above solutions cannot create files or the command prompt is -bash-4.2$, it maybe exist multi-level directory, this needs to change the
server.domain11.example.com:/home/guests/ to server.domain11.example.com:/home/guests/ldapuserX. What is multi-level directory? It means there is a directory
of ldapuserX under the /home/guests/ldapuserX in the questions. This directory is the real directory.

QUESTION 8
SIMULATION

Configure a user account.

Create a user iar, uid is 3400. Password is redhat

Correct Answer: See explanation below.
Section: (none)
Explanation

Explanation/Reference:
Explanation: useradd -u 3400 iar
passwd iar

QUESTION 9
SIMULATION

Add a swap partition.

Adding an extra 500M swap partition to your system, this swap partition should mount automatically when the system starts up. Don't remove and modify the existing swap partitions on your system.

Correct Answer: See explanation below.
Section: (none)
Explanation

Explanation/Reference:
Explanation:
fdisk -cu /dev/vda// in the way of expanding the partition, don't make main partition
partx –a /dev/vda
mkswap /dev/vdax
swapon /dev/vdax
swapon –s
vi /etc/fstab
/dev/vdaxswapswapdefaults0 0
mount -a

QUESTION 10
SIMULATION

Search files.

Find out files owned by jack, and copy them to directory /root/findresults

Correct Answer: See explanation below.
Section: (none)
Explanation

Explanation/Reference:
Explanation: mkdir/root/findfiles
find / -user jack -exec cp -a {} /root/findfiles/ \; ls /root/findresults

QUESTION 11
SIMULATION

Search a String

Find out all the columns that contains the string seismic within /usr/share/dict/words, then copy all these columns to /root/lines.tx in original order, there is no blank line, all columns must be the accurate copy of the original columns.

Correct Answer: See explanation below.
Section: (none)
Explanation

Explanation/Reference:
Explanation: grep seismic /usr/share/dict/words   > /root/lines.txt

QUESTION 12
SIMULATION

Create a backup

Create a backup file named /root/backup.tar.bz2, contains the content of /usr/local, tar must use bzip2 to compress.

Correct Answer: See explanation below.
Section: (none)
Explanation

Explanation/Reference:
Explanation:
cd /usr/local
tar –jcvf /root/backup.tar.bz2
mkdir /test
tar –jxvf /root/backup.tar.bz2 –C /test// Decompression to check the content is the same as the /usr/loca after

If the questions require to use gzip to compress. change –j to –z.

QUESTION 13
SIMULATION

Create a logical volume

Create a new logical volume as required:
Name the logical volume as database, belongs to datastore of the volume group, size is 50 PE.
Expansion size of each volume in volume group datastore is 16MB.

Use ext3 to format this new logical volume, this logical volume should automatically mount to /mnt/database

Correct Answer: See explanation below.
Section: (none)
Explanation

Explanation/Reference:
Explanation: fdisk -cu /dev/vda// Create a 1G partition, modified when needed
partx –a /dev/vda
pvcreate /dev/vdax
vgcreate datastore /dev/vdax –s 16M
lvcreate– l 50 –n database datastore
mkfs.ext3 /dev/datastore/database
mkdir /mnt/database
mount /dev/datastore/database /mnt/database/ df –Th
vi /etc/fstab
/dev/datastore /database /mnt/database/ ext3 defaults 0 0 mount –a

Restart and check all the questions requirements.

QUESTION 14
SIMULATION

Configure your Host Name, IP Address, Gateway and DNS.

Host name: dtop5.dn.ws.com
IP Address: 172.28.10.5/4
Gateway: 172.28.10.1
DNS: 172.28.10.1

Correct Answer: See explanation below.
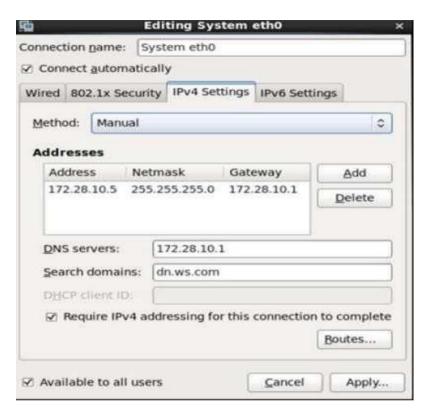**Section: (none)**
Explanation

Explanation/Reference:
Explanation:

1. Configure Host Name
vim /etc/sysconfig/network NETWORKING=yes HOSTNAME=dtop5.dn.ws.com GATEWAY=172.28.10.1
2. Configure IP Address, Gateway and DNS
Configure the network by Network Manager:

Note: Please remember to choose two options:
Connect automatically
Available to all users

Click "Apply", save and exit, and restart your network services:

Service network restart

3. Validate these profiles:
a) Check gateway: # vim / etc / sysconfig / network

NETWORKING=yes
HOSTNAME=dtop5.dn.ws.com
GATEWAY=172.28.10.1

b) Check Host Name: # vim /etc/hosts

```
172.28.10.5   dtop5.dn.ws.com   dtop5   # Added by NetworkManager
127.0.0.1      localhost.localdomain      localhost
::1      dtop.dn.ws.com   dtop5  localhost6.localdomain6 localhost6
```

c) Check DNS: # vim /etc/resolv.conf
 # Generated by NetworkManager
Search dn.ws.com
Nameserver 172.28.10.1

d) Check Gateway: # vim /etc/sysconfig/network-scripts/ifcfg-eth0

```
DEVICE="eth0"
NM_CONTROLLED="yes"
ONBOOT=yes
TYPE=Ethernet
BOOTPROTO=none
IPADDR=172.28.10.5
PREFIX=24
GATEWAY=172.28.10.1
DNS1=172.28.10.1
DOMAIN=dn.ws.com
DEFROUTE=yes
IPV4_FAILURE_FATAL=yes
IPV6INIT=no
NAME="System eth0"
UUID=5fb06bd0-0bb0-7ffb-45f1-d6edd65f3e03
HWADDR=00:0c:29:0E:A6:C8
```

QUESTION 15
SIMULATION

Create a 2G swap partition which take effect automatically at boot-start, and it should not affect the original swap partition.

Correct Answer: See explanation below.
Section: (none)

Explanation

Explanation/Reference:
Explanation: # fdisk /dev/sda
p
(check Partition table)
n
(create new partition: press e to create extended partition, press p to create the main partition, and the extended partition is further divided into logical partitions)
Enter
+2G t
8 I
82
W
partx -a /dev/sda
partprobe
mkswap /dev/sda8

Copy UUID
swapon -a
vim /etc/fstab
UUID=XXXXX swap swap defaults 0 0

(swapon -s)

QUESTION 16
SIMULATION

Please open the ip_forward, and take effect permanently.

Correct Answer: See explanation below.
Section: (none)
Explanation

Explanation/Reference:
Explanation:
vim /etc/sysctl.conf net.ipv4.ip_forward = 1
sysctl –w   (takes effect immediately)

If no "sysctl.conf" option, use these commands:

sysctl –a |grep net.ipv4
sysctl –P net.ipv4.ip_forward = 1

sysctl -w

QUESTION 17
SIMULATION

Open kmcrl value of 5 , and can verify in /proc/ cmdline

Correct Answer: See explanation below.
Section: (none)
Explanation

Explanation/Reference:
Explanation:

vim /boot/grub/grub.conf
kernel/vmlinuz-2.6.32-71.el6.x86_64 ro root=/dev/mapper/GLSvg-GLSrootrd_LVM_LV=GLSvg/GLSroot
rd_LVM_LV=GLSvg/GLSswaprd_NO_LUKSrd_NO_MDrd_NO_DM
LANG=en_US.UTF-8 SYSFONT=latarcyrheb-sun16 KEYBOARDTYPE=pc KEYTABLE=us crashkernel=auto rhgb quiet kmcrl=5

Restart to take effect and verification:

cat /proc/cmdline
ro root=/dev/mapper/GLSvg-GLSroot rd_LVM_LV=GLSvg/GLSroot rd_LVM_LV=GLSvg/GLSswap rd_NO_LUKS rd_NO_MD rd_NO_DM

LANG=en_US.UTF-8 SYSFONT=latarcyrheb-sun16 KEYBOARDTYPE=pc KEYTABLE=us rhgb quiet kmcrl=5

QUESTION 18
SIMULATION

Upgrade the kernel, start the new kernel by default. kernel download from this address:
ftp://server1.domain10.example.com/pub/update/new.kernel

Correct Answer: See explanation below.
Section: (none)
Explanation

Explanation/Reference:
Explanation: Download the new kernel file and then install it.
[root@desktop8 Desktop]# ls
kernel-2.6.32-71.7.1.el6.x86_64.rpm
kernel-firmware-2.6.32-71.7.1.el6.noarch.rpm
[root@desktop8 Desktop]# rpm -ivh kernel-*

Preparing... ###
[100%]
1:kernel-firmware
[50%]
2:kernel
[100%]

Verify the grub.conf file, whether use the new kernel as the default boot. [root@desktop8 Desktop]# cat /boot/grub/grub.conf default=0
title Red Hat Enterprise Linux Server (2.6.32-71.7.1.el6.x86_64)
root (hd0,0)

kernel /vmlinuz-2.6.32-71.7.1.el6.x86_64 ro root=/dev/mapper/vol0-root rd_LVM_LV=vol0/root rd_NO_LUKS rd_NO_MD

rd_NO_DM LANG=en_US.UTF-8 SYSFONT=latarcyrheb-sun16 KEYBOARDTYPE=pc KEYTABLE=us crashkernel=auto rhgb quiet
initrd /initramfs-2.6.32-71.7.1.el6.x86_64.img

QUESTION 19
SIMULATION

Configure iptables, there are two domains in the network, the address of local domain is 172.24.0.0/16 other domain is 172.25.0.0/16, now refuse domain 172.25.0.0/16 to access the server.

Correct Answer: See explanation below.
Section: (none)
Explanation

Explanation/Reference:
Explanation:

iptables -F
service iptables save
iptables -A INPUT -s 172.25.0.0/16 -j REJECT
service iptables save
service iptables restart

QUESTION 20
SIMULATION

A YUM source has been provided in the
http://instructor.example.com/pub/rhel6/dvd
Configure your system and can be used normally.

Correct Answer: See explanation below.
Section: (none)
Explanation

Explanation/Reference:
Explanation:

/etc/yum.repos.d/base.repo
[base]
name=base
baseurl=http://instructor.example.com/pub/rhel6/dvd
gpgcheck=0

yum list

QUESTION 21
SIMULATION

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 RHEL6 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?

Correct Answer: See explanation below.
Section: (none)
Explanation

Explanation/Reference:
Explanation:

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
service network restart
Gateway defines the way to exit the packets. According to question System working as a router for two networks have IP Address 192.168.0.254 and 192.168.1.254.

QUESTION 22

SIMULATION

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

Correct Answer: See explanation below.
Section: (none)
Explanation

Explanation/Reference:
Explanation:

Use fdisk /dev/hda ->To create new partition.
Type n-> For New partition
It will ask for Logical or Primary Partitions. Press l for logical.
It will ask for the Starting Cylinder: Use the Default by pressing Enter Key.
Type the Size: +100M ->You can Specify either Last cylinder of Size here.
Press P to verify the partitions lists and remember the partitions name. Default System ID is 83 that means Linux Native.
Type t to change the System ID of partition.
Type Partition Number
Type 82 that means Linux Swap.
Press w to write on partitions table.
Either Reboot or use partprobe command.
mkswap /dev/hda? ->To create Swap File system on partition.
swapon /dev/hda? ->To enable the Swap space from partition.
free -m ->Verify Either Swap is enabled or not.
vi /etc/fstab/dev/hda? swap swap defaults 0 0
Reboot the System and verify that swap is automatically enabled or not.

QUESTION 23
SIMULATION

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.

Correct Answer: See explanation below.
Section: (none)
Explanation

Explanation/Reference:
Explanation:

vi /etc/sysconfing/network NETWORKING=yes HOSTNAME=station?.example.com GATEWAY=192.168.0.254

service network restart

2.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
ifdown eth0
ifup eth0

QUESTION 24
SIMULATION

One Logical Volume is created named as myvol under vo volume group and is mounted. The Initial Size of that Logical Volume is 400MB. Make successfully that the size of Logical Volume 200MB without losing any data. The size of logical volume 200MB to 210MB will be acceptable.

Correct Answer: See explanation below.
Section: (none)
Explanation

Explanation/Reference:
Explanation:

First check the size of Logical Volume: lvdisplay /dev/vo/myvol
Make sure that the filesystem is in a consistent state before reducing:
fsck -f /dev/vo/myvol
Now reduce the filesystem by 200MB.
resize2fs /dev/vo/myvol 200M

It is now possible to reduce the logical volume. #lvreduce /dev/vo/myvol -L 200M
Verify the Size of Logical Volume: lvdisplay /dev/vo/myvol
Verify that the size comes in online or not: df -h

QUESTION 25
SIMULATION

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.

Correct Answer: See explanation below.
Section: (none)

Explanation

Explanation/Reference:
Explanation:

lvextend -L+200M /dev/test0/testvolume1 Use lvdisplay /dev/test0/testvolume1)
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 26
SIMULATION

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.

Correct Answer: See explanation below.
Section: (none)
Explanation

Explanation/Reference:
Explanation:

Create a partition having size 5 GB and change the syste id '8e'.
use partprobe command
pvcreate /dev/hda9 Suppose your partition number is hda9.
vgextend test0 /dev/hda9 vgextend command add the physical disk on volume group.
lvextend -L+5120M /dev/test0/lvtestvolume
verify using lvdisplay /dev/test0/lvtestvolume.

QUESTION 27
SIMULATION

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/ where x is your Station number.

Correct Answer: See explanation below.
Section: (none)
Explanation

Explanation/Reference:

Explanation:

use the authconfig --nisserver=<NIS SERVER> --nisdomain=<NIS DOMAIN> -- update
Example: authconfig --niserver=192.168.0.254 --nisdomain=RHCE --update or system-config-authentication
Click on Enable NIS
Type the NIS Domain: RHCE
Type Server 192.168.0.254 then click on next and ok
You will get a ok message.
Create a Directory /rhome/stationx where x is your station number.
vi /etc/auto.master and write at the end of file /rhome/stationx /etc/auto.home --timeout=60
vi /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.
Service autofs restart
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 with option or system-config authentication command. There a are lots of authentication server i.e NIS, LDAB, 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 28
SIMULATION

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

Correct Answer: See explanation below.
Section: (none)
Explanation

Explanation/Reference:
Explanation:

chmod 770 /data
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 29

SIMULATION

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

Correct Answer: See explanation below.
Section: (none)
Explanation

Explanation/Reference:
Explanation:
1. chmod g+s /data
2. Verify using: ls -ld /data
Permission should be like this: 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 30
SIMULATION

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?

Correct Answer: See explanation below.
Section: (none)
Explanation

Explanation/Reference:
Explanation:

echo "1" >/proc/sys/net/ipv4/ip_forward
vi /etc/sysctl.conf
net.ipv4.ip_forward = 1

If you want to use the Linux System as a Router to make communication between different networks, you need enable the IP forwarding. To enable on running session just set value 1 to
/proc/sys/net/ipv4/ip_forward. As well as automatically turn on the IP forwarding features on next boot set on /etc/sysctl.conf file.

QUESTION 31
SIMULATION

Create the user named eric and deny to interactive login.

Correct Answer: See explanation below.
Section: (none)
Explanation

Explanation/Reference:
Explanation:

useradd eric
passwd eric
vi /etc/passwd
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 32
SIMULATION

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

Correct Answer: See explanation below.
Section: (none)
Explanation

Explanation/Reference:
Explanation:

1. vi /etc/auto.master
/mnt /etc /auto.misc --timeout=50
vi /etc/auto.misc
data -rw,soft,intr server1.example.com:/data
service autofs restart
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 33
SIMULATION

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

Correct Answer: See explanation below.
Section: (none)
Explanation

Explanation/Reference:
Explanation: The LVM system organizes hard disks into Logical Volume (LV) groups. Essentially, physical hard disk partitions (or possibly RAID arrays) are set up in a bunch of equal sized chunks known as Physical Extents (PE). As there are several other concepts associated with the LVM system, let's start with some basic definitions:

Physical Volume (PV) is the standard partition that you add to the LVM mix. Normally, a physical volume is a standard primary or logical partition. It can also be a RAID array.

Physical Extent (PE) is a chunk of disk space. Every PV is divided into a number of equal sized PEs. Every PE in a LV group is the same size. Different LV groups can have different sized PEs.

Logical Extent (LE) is also a chunk of disk space. Every LE is mapped to a specific PE.

Logical Volume (LV) is composed of a group of LEs. You can mount a file system such as /home and /var on an LV.

Volume Group (VG) is composed of a group of LVs. It is the organizational group for LVM. Most of the commands that you'll use apply to a specific VG.
Verify the size of Logical Volume: lvdisplay /dev/vg0/lv1
Verify the Size on mounted directory: df -h or df -h mounted directory name
Use: lvextend -L+400M /dev/vg0/lv1
ext2online -d /dev/vg0/lv1 to bring extended size online.
Again Verify using lvdisplay and df -h command.

QUESTION 34
SIMULATION

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

Correct Answer: See explanation below.
Section: (none)
Explanation

Explanation/Reference:
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.
vi /etc/fstab
Write:
/dev/hda? /data ext3 defaults 1 2
Verify by mounting on current Sessions also: mount /dev/hda? /data

QUESTION 35
SIMULATION

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.

Correct Answer: See explanation below.
Section: (none)
Explanation

Explanation/Reference:
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. To change the root password you need to boot the system into single user mode. You can pass the kernel arguments from the boot loader.

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 queit s
4. System will boot on Single User mode.
5. Use passwd command to change.
6. Press ctrl+d

QUESTION 36
SIMULATION

You are a System administrator. Using Log files very easy to monitor the system. Now there are 50 servers running as Mail, Web, Proxy, DNS services etc. You want to centralize the logs from all servers into on LOG Server. How will you configure the LOG Server to accept logs from remote host?

Correct Answer: See explanation below.
Section: (none)
Explanation

Explanation/Reference:
Explanation: By default, system accept the logs only generated from local host. To accept the Log from other host configure:

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 received with -r
service syslog restart

QUESTION 37
SIMULATION

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

Correct Answer: See explanation below.
Section: (none)
Explanation

Explanation/Reference:
Explanation: nameserver is specified in question,
1. Vi /etc/resolv.conf
nameserver 192.168.0.254
2. host server1.example.com

QUESTION 38
SIMULATION

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.

Correct Answer: See explanation below.
Section: (none)
Explanation

Explanation/Reference:
Explanation:

rpm -ivh ftp://server1/example.com/pub/updates/zsh-*
or
Login to ftp server : ftp ftp://server1.example.com using anonymous user.
Change the directory: cd pub and cd updates
Download the package: mget zsh-*
Quit from the ftp prompt : bye
Install the package
rpm -ivh zsh-*
Verify either package is installed or not : rpm -q zsh

QUESTION 39
SIMULATION

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.

Correct Answer: See explanation below.
Section: (none)
Explanation

Explanation/Reference:
Explanation:

Verify the File whether Shared or not ? : cat /etc/exports
Start the nfs service: service nfs start
Start the portmap service: service portmap start
Make automatically start the nfs service on next reboot: chkconfig nfs on
Make automatically start the portmap service on next reboot: chkconfig portmap on
Verify either sharing or not: showmount -e localhost
Check that default firewall is running on system?
If running flush the iptables using iptables -F and stop the iptables service.

QUESTION 40
SIMULATION

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

Correct Answer: See explanation below.
Section: (none)

Explanation

Explanation/Reference:
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
Keys
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

1. mke2fs -j /dev/hda? ->To create ext3 filesystem.
2. vi /etc/fstab
3. Write:
/dev/hda? /data ext3 defaults 0 0
4. Verify by mounting on current sessions also:
mount /dev/hda? /data

QUESTION 41
SIMULATION

You have a domain named www.rhce.com associated IP address is 192.100.0.2. Configure the Apache web server by implementing the SSL for encryption communication.

Correct Answer: See explanation below.
Section: (none)
Explanation

Explanation/Reference:
Explanation:

vi /etc/httpd/conf.d/ssl.conf <VirtualHost 192.100.0.2> ServerName www.rhce.com DocumentRoot /var/www/rhce DirectoryIndex index.html index.htm ServerAdmin webmaster@rhce.com SSLEngine on SSLCertificateFile /etc/httpd/conf/ssl.crt/server.crt SSLCertificateKeyFile /etc/httpd/conf/ssl.key/server.key </VirtualHost>
cd /etc/httpd/conf
3 make testcert

Create the directory and index page on specified path. (Index page can download from ftp://server1.example.com at exam time)
service httpd start|restart
chkconfig httpd on
Apache can provide encrypted communications using SSL (Secure Socket Layer). To make use of encrypted communication, a client must request to https protocol, which is uses port 443. For HTTPS protocol required the certificate file and key file.

QUESTION 42
SIMULATION

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.

Correct Answer: See explanation below.
Section: (none)
Explanation

Explanation/Reference:
Explanation:

Use netconfig command
Enter the IP Address as given station number by your examiner: example: 172.24.0.1
Enter Subnet Mask
Enter Default Gateway and primary name server
press on ok
ifdown eth0
ifup eth0
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 43
SIMULATION

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

Correct Answer: See explanation below.
Section: (none)
Explanation

Explanation/Reference:
Explanation:

vi /etc/resolv.conf

nameserver 172.24.254.254
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 44
SIMULATION

Your System is going use as a router for 172.24.0.0/16 and 172.25.0.0/16. Enable the IP Forwarding.
1. echo "1" >/proc/sys/net/ipv4/ip_forward
2. vi /etc/sysctl.conf net.ipv4.ip_forward=1

Correct Answer: See explanation below.
Section: (none)
Explanation

Explanation/Reference:
Explanation: /proc is the virtual filesystem, containing the information about the running kernel.

To change the parameter of running kernel you should modify on /proc. From Next reboot the system, kernel will take the value from /etc/sysctl.conf.

QUESTION 45
SIMULATION

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

Correct Answer: See explanation below.
Section: (none)
Explanation

Explanation/Reference:
Explanation:

chmod g+s /archive
Verify using: ls -ld /archive Permission should be like:
drwxrws--- 2 root sysuser 4096 Mar 16 18:08 /archive
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 46
SIMULATION

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

Correct Answer: See explanation below.
Section: (none)
Explanation

Explanation/Reference:
Explanation:

chmod 770 /archive
Verify using : ls -ld /archive Preview should be like:
drwxrwx--- 2 root sysuser 4096 Mar 16 18:08 /archive
To change the permission on directory we use the chmod command. According to the question that only the owner user (root) and group member (sysuser) can fully
access the directory so: chmod 770 /archive

QUESTION 47
SIMULATION

Notes:
NFS: NFS instructor.example.com:/var/ftp/pub/rhel6/dvd
YUM: http://instructor.example.com/pub/rhel6/dvd
ldap: http://instructor.example.com/pub/EXAMPLE-CA-CERT

Install dialog package.

Correct Answer: yum install dialog
Section: (none)
Explanation

Explanation/Reference:

QUESTION 48
SIMULATION

SELinux must run in force mode.

Correct Answer: See explanation below.
Section: (none)
Explanation

Explanation/Reference:

Explanation: /etc/sysconfig/selinux
SELINUX=enforcing

QUESTION 49
SIMULATION

The firewall must be open.

Correct Answer: See explanation below.
Section: (none)
Explanation

Explanation/Reference:
Explanation: /etc/init.d/iptables start
iptables -F
iptables -X
iptables -Z
/etc/init.d/iptables save
chkconfig iptables on

QUESTION 50
SIMULATION

In the system, mounted the iso image /root/examine.iso to/mnt/iso directory. And enable automatically mount (permanent mount) after restart system.

Correct Answer: See explanation below.
Section: (none)
Explanation

Explanation/Reference:
Explanation:
/etc/fstab:
/root/examine.iso /mnt/iso iso9660 loop 0 0 mount -a
mount | grep examine

QUESTION 51
SIMULATION

Configure your NFS services. Share the directory by the NFS Shared services.

Correct Answer: See explanation below.
Section: (none)

Explanation

Explanation/Reference:
Explanation: /etc/init.d/rpcbind start
/etc/init.d/nfslock start
/etc/init.d/nfs start
chkconfig rpcbind on
chkconfig nfslock on
chkconfig nfs on
showmount -e localhost

QUESTION 52
SIMULATION

1. Find all sizes of 10k file or directory under the /etc directory, and copy to /tmp/findfiles directory.
2. Find all the files or directories with Lucy as the owner, and copy to /tmp/findfiles directory.

Correct Answer: See explanation below.
Section: (none)
Explanation

Explanation/Reference:
Explanation:

(1)find /etc -size 10k -exec cp {} /tmp/findfiles \;
(2)find / -user lucy -exec cp -a {} /tmp/findfiles \;
Note: If find users and permissions, you need to use cp - a options, to keep file permissions and user attributes etc.

QUESTION 53
SIMULATION

There is a local logical volumes in your system, named with common and belong to VGSRV volume group, mount to the /common directory. The definition of size is
128 MB.
Requirement:
Extend the logical volume to 190 MB without any loss of data. The size is allowed between 160-160 MB after extending.

Correct Answer: See explanation below.
Section: (none)
Explanation

Explanation/Reference:
Explanation: lvextend -L 190M /dev/mapper/vgsrv-common resize2fs /dev/mapper/vgsrv-common

QUESTION 54
SIMULATION

There is a local logical volumes in your system, named with shrink and belong to VGSRV volume group, mount to the /shrink directory. The definition of size is 320 MB.
Requirement:
Reduce the logical volume to 220 MB without any loss of data. The size is allowed between 200-260 MB after reducing.

Correct Answer: See explanation below.
Section: (none)
Explanation

Explanation/Reference:
Explanation: cd;umount /shrink
e2fsck -f /dev/mapper/vgsrv-shrink
resize2fs /dev/mapper/vgsrv-shrink 220M
lvreduce -L 220M /dev/mapper/vgsrv-shrink
mount -a

QUESTION 55
SIMULATION

Create a swap space, set the size is 600 MB, and make it be mounted automatically after rebooting the system (permanent mount).

Correct Answer: See explanation below.
Section: (none)
Explanation

Explanation/Reference:
Explanation:
if=/dev/zero of=/swapfile bs=1M count=600 mkswap /swapfile
/etc/fstab:
/swapfile swap swap defaults 0 0 mount -a