Break password:  
-Press e  
- go to linux16 line and at end of the line add "rd.break console=tty1". Press control + X  
- mount -o remount,rw /sysroot/  
- chroot /sysroot/  
-passwd  
- Type password  
- touch /.autorelabel  
- Ctrl + D to exit  
  
- Change the screen from CLI to GUI  
systemctl set-default graphical-target--- For permanent  
systemctl isolate graphical-trarget  
  
Configure the IP address, GW, DNS, hostname  
- Check below things  
static or dynamic ip address: ip a s  
hostname: #hostnamectl  
GW: route -n  
DNS: cat /etc/resolv.conf  
connection: nmcli connection show  
#nmcli connection modify "System eth0" ipv4.address "172.25.10.10/24 172.25.10.254" ipv4.dns "172.25.254.254" ipv4.dns-search "example.com" ipv4.method static  
# nmcli connection down "System eth0"  
# nmcli connection up "System eth0"  
# hostnamectl set-hostname desktop10.example.com  
Verify using the above command.  
  
1) Create the "LVM" with the name "marvel" by using 21PE's from the volume group "stone". Consider the PE size as "8MB". Mount it on /mnt/secret with filesystem vfat.  
  
solution:  
  
# fdisk -cu /dev/vda  
  
Command (m for help): p  
  
Disk /dev/vda: 6442 MB, 6442450944 bytes  
16 heads, 63 sectors/track, 12483 cylinders, total 12582912 sectors  
Units = sectors of 1 \* 512 = 512 bytes  
Sector size (logical/physical): 512 bytes / 512 bytes  
I/O size (minimum/optimal): 512 bytes / 512 bytes  
Disk identifier: 0x0007d1ac  
  
   Device Boot   Start End   Blocks   Id  System  
/dev/vda1   \*     2048   526335   262144   83  Linux  
/dev/vda2   526336 9914367 4694016   8e  Linux LVM  
  
Command (m for help): n  
Command action  
   e   extended  
   p   primary partition (1-4)  
e  
Partition number (1-4): 3  
First sector (9914368-12582911, default 9914368):  
Using default value 9914368  
Last sector, +sectors or +size{K,M,G} (9914368-12582911, default 12582911):  
Using default value 12582911  
  
Command (m for help): n  
Command action  
   l   logical (5 or over)  
   p   primary partition (1-4)  
l  
First sector (9916416-12582911, default 9916416):  
Using default value 9916416  
Last sector, +sectors or +size{K,M,G} (9916416-12582911, default 12582911): +169M  
  
Command (m for help): p  
  
Disk /dev/vda: 6442 MB, 6442450944 bytes  
16 heads, 63 sectors/track, 12483 cylinders, total 12582912 sectors  
Units = sectors of 1 \* 512 = 512 bytes  
Sector size (logical/physical): 512 bytes / 512 bytes  
I/O size (minimum/optimal): 512 bytes / 512 bytes  
Disk identifier: 0x0007d1ac  
  
   Device Boot   Start End   Blocks   Id  System  
/dev/vda1   \*     2048   526335   262144   83  Linux  
/dev/vda2   526336 9914367 4694016   8e  Linux LVM  
/dev/vda3 9914368    12582911 1334272    5  Extended  
/dev/vda5 9916416    10262527   173056   83  Linux  
  
Command (m for help): t  
Partition number (1-5): 5  
Hex code (type L to list codes): 8e  
Changed system type of partition 5 to 8e (Linux LVM)  
  
Command (m for help): p  
  
Disk /dev/vda: 6442 MB, 6442450944 bytes  
16 heads, 63 sectors/track, 12483 cylinders, total 12582912 sectors  
Units = sectors of 1 \* 512 = 512 bytes  
Sector size (logical/physical): 512 bytes / 512 bytes  
I/O size (minimum/optimal): 512 bytes / 512 bytes  
Disk identifier: 0x0007d1ac  
  
   Device Boot   Start End   Blocks   Id  System  
/dev/vda1   \*     2048   526335   262144   83  Linux  
/dev/vda2   526336 9914367 4694016   8e  Linux LVM  
/dev/vda3 9914368    12582911 1334272    5  Extended  
/dev/vda5 9916416    10262527   173056   8e  Linux LVM  
  
Command (m for help): w  
The partition table has been altered!  
  
Calling ioctl() to re-read partition table.  
  
WARNING: Re-reading the partition table failed with error 16: Device or resource busy.  
The kernel still uses the old table. The new table will be used at  
the next reboot or after you run partprobe(8) or kpartx(8)  
Syncing disks.  
  
# reboot  
  
# pvcreate /dev/vda5  
# vgcreate -s 8M stone /dev/vda5  
# pvs  
# vgs  
# vgdisplay stone  
# lvcreate -L +168M -n marvel stone  
# lvs  
# lvdisplay /dev/stone/marvel  
# mkfs.vfat /dev/stone/marvel  
# mkdir /mnt/secret  
# vim /etc/fstab  
--> append the following entry  
/dev/stone/marvel /mnt/secret vfat defaults 0 0  
--> save and exit  
# mount -a  
# df -Th  
  
Question 2:  
# groupadd sysadmin  
# groupadd stooges  
useradd -G stooges larry  
useradd -G stooges curly  
useradd -s /sbin/nologin moe  
  
passwd larry  
passwd moe  
passwd curly  
  
Question 3:  
  
mkdir -p /home/manager  
groupadd manger  
chgrp manger /home/manager  
chmod 770 /home/manager  
chmod 2770 /home/manager  
  
Question 4: Question on upgrading the kernel  
  
uname -r : to check what kernal is loaded  
yum-config-manger --add-repo== <they will provide you the link>  
cd /etc/yum.rep  
vim <file\_name>  
gpgcheck=0  
yum install kernel -y  
yum list kernel  
reboot  
uname -r : to check if it's booted on new version or not.  
  
  
Question 5:  
Question on Crony  
  
useradd sarah  
useradd max  
crontab -eu sarah  
23    14    \*    \*    \*    /bin/echo    "hyer"  
vim /etc/cron.deny  
max  
systemctl status crond  
Test: loging to max user and execute crontab -eu max: you will see pemission denied.  
  
Question 6:  
  
  
I got the question to extend the volume group  
  
To extend the logical volume  
lvextend -L +100M /dev/<vggroup\_name>/<lvgroup\_name>  
resize2fs /dev/<vggroup\_name>/<lvgroup\_name>  
  
Question 7: Question on LDAP and autofs  
  
Yum install authconfig-gtk sssd autofs  
authconfig-gtk  
-> In the "User Account Database:" select "LDAP"  
--> In the "LDAP Search Base DN:" type "dc=example,dc=com"(suffix in our classroom)  
--> In the "LDAP Server:" type "ldap://instructor.example.com"  
--> Select "Use TLS to encrypt connections"  
--> Click on "Download CA Certificate" and in the appeared box type the URL "[ftp://instructor.example.com/pub/EXAMPLE-CA-CERT"](ftp://instructor.example.com/pub/EXAMPLE-CA-CERT)  
--> Click on "OK"  
--> In the "Authentication Method:" select "LDAP password"  
--> Click on "Apply"  
--> Then with the below command you should be able to view user's information  
  
# getent passwd ldapuserX  
Verify:  
su - ldapuserX : It will give error since home directoy is not present on this PC but execute command whoami and see if you can see ldapuserX got login.  
  
Question 8:  
  
YUM install chrony  
Change the date and time of system  
vim /etc/chrony.conf  
comment out all the server lists there and then put the line server classroom.example.com iburst  
systemctl restart chronyd  
  
Question 9:  
yum install autofs  
  
vim /etc/auto.master    
/home/guests /etc/auto.misc  
vim /etc/auto.misc  
ldapuser1 -fstype=nfs classroom.example.com:/home/guests/ldapuser1  
here \* all files which are present under guests. If asked spefic user then mentioned that specifi user only.  
systemctl reload autofs  
systemctl reload sssd  
mount -a  
  
Question 10:  
  
# cp /etc/fstab /var/tmp  
# ls -l /var/tmp/fstab  
# useradd sarah  
# setfacl -m u:sarah:rw /var/tmp/fstab  
# useradd natasha  
# setfacl -m u:natasha:--- /var/tmp/fstab  
  
  
Question 12:  
  
yum install httpd  
firewall-cmd --permanent --add-service=http  
firewall-cmd --reload  
download the file using wget command and copy it to the /var/www/html folder  
systemsctl start http  
systemctl enable http  
  
To verify.: get the hostname of m/c using hostname command open firefox or curl for hostname. We should see the html page.  
  
\*\*\*\*\*if the file is not index.html then home page is not opening\*\*\*\*  
  
Question 13:  
  
useradd -u 4223 dax  
  
verify using the : id dax  
  
Question 14: Set SELinyux to enforcing mode  
change the file: vim /etc/selinux/conf  
and mentioned enforcing and reboot the PC.  
  
Question 15:  
mkdir /root/found  
find / -user julie -exec cp -rvfp {} /root/found/ \;  
  
Question : SSH  
You just need to check if the ssh is enable or not.  
systemctl status sshd  
ssh saara@server0.example.com // local host  
  
Question: Search alpha numerinc charater and sort them and redirect to some file.  
  
# wget <http://192.168.0.254/exam/sample.txt>  
# cat sample.txt | grep "a-z" "0-9" | sort >> /root/samplelines  
  
17) List all lines which have string "enter" from "/tmp/file1" file and copy the lines in /root/word  
  
# grep enter /tmp/file1 >> /root/word  
  
Swap question short cut:  
code: 82  
free -m - to check the swap staus  
mkswap <path> : Copy the blkid  
vim /etc/fstab  
<UUID> swap swap defaults 0 0  
swapon <path>  
swapon -a  
swapon -s  
  
LVM question for physical extent  
code: 8e  
pvcreate /dev/vdbX  
vgcreate -s <size> <name> /dev/vdbX  
lvcreate -l <number of physical extent> -n <name\_lv> <name of vg group>  
mkfs.ext4 /dev/<vggroup\_name>/<lvgroup\_name>  
mkdir /databd  
vim /etc/fstab  
/dev/<vggroup\_name>/<lvgroup\_name> /datadb    ext4    defaults 0 0  
mount -a  
  
To extend the logical volume  
lvextend -L +100M /dev/<vggroup\_name>/<lvgroup\_name>  
resize2fs /dev/<vggroup\_name>/<lvgroup\_name>  
  
To reduce the logical volume  
get the final size after reducing the volume. Lets say final size is 150 mb  
umount <folder\_name\_where\_it\_mounted>  
e2fsck -f /dev/<vggroup\_name>/<lvgroup\_name>  
resizefs /dev/<vggroup\_name>/<lvgroup\_name> 150M  
lvreduce -L 150M /dev/<vggroup\_name>/<lvgroup\_name>  
mount -a