

CompTIA

Exam Questions XK0-004

CompTIA Linux+ Certification Exam



NEW QUESTION 1

A Linux administrator needs to switch from text mode to GUI. Which of the following runlevels will start the GUI by default?

- A. Runlevel 3
- B. Runlevel 4
- C. Runlevel 5
- D. Runlevel 6

Answer: C

NEW QUESTION 2

A Linux administration is using a Linux system as a router. During the tests, the administrator discovers that IP packets are not being sent between the configured interfaces.

Which of the following commands enables this feature for IPv4 networks?

- A. `cat /proc/sys/net/ipv4/ip_route > 1`
- B. `echo "1" > /proc/sys/net/ipv4/ip_forward`
- C. `echo "1" > /proc/sys/net/ipv4/ip_route`
- D. `echo "1" > /proc/sys/net/ipv4/ip_net`

Answer: B

NEW QUESTION 3

A Linux administrator has installed a web application firewall in front of a web server running on HTTP port 8080 and successfully started the HTTP server. However, after opening the application URL in an Internet browser, the administrator discovered that the application does not work. The administrator performed the following diagnostic steps:

Output of `sysctl -a` command:

```
kernel.sched_child_runs_first = 0
kernel.panic = 0
kernel.ftrace_enabled = 1
kernel.sysrq = 1
net.ipv4.icmp_echo_ignore_all = 0
```

Output of `iptables -L` command:

```
Chain INPUT (policy ACCEPT)

target    prot opt source destination tcp dpt:webcache

Chain FORWARD (policy ACCEPT)

target    prot opt source destination dpt:webcache

Chain OUTPUT (policy ACCEPT)

target    prot opt source destination
```

Output of `netstat -nltop | grep "8080"`:

```
tcp      0.0.0.0:8080  0.0.0.0*  Listen  12801/httpd
```

Which of the following is the NEXT step the administrator should perform to permanently fix the issue at the kernel level?

- A. `sysctl -w net.ipv4.ip_forward=1` then run `sysctl -w /etc/sysctl.conf` to enable the change
- B. Edit `/etc/sysctl.conf` file and add `net.ipv4.ip_forward = 1` then run `sysctl -p /etc/sysctl.conf` to enable the change
- C. Add iptables rule `iptables -A INPUT -m state --state NEW -p tcp --dport 8080 -j` then restart httpd daemon
- D. Add iptables rule `iptables -A FORWARD -m state --state NEW -p tcp --dport 8080 -j ACCEPT` then restart httpd daemon

Answer: D

NEW QUESTION 4

A Linux administrator is testing connectivity to a remote host on a shared terminal. The administrator wants to allow other users to access the terminal while the command is executing.

Which of the following commands should the administrator use?

- A. `bg ping remotehost`
- B. `fg ping remotehost`
- C. `ping remotehost < results`
- D. `ping remotehost &`

Answer: C

NEW QUESTION 5

An administrator is tasked with increasing the size of the volume /dev/vg/lv to 20GB. Which of the following BEST illustrates the steps the administrator should take?

- A. vgextend -L20G /dev/vg/lv; resizelv /dev/vg/lv
- B. parted -L20G /dev/vg/lv; remount /dev/vg/lv
- C. mkfs -L20G /dev/vg/lv; tune2fs /dev/vg/lv
- D. lvextend -L20G /dev/vg/lv; resize2fs /dev/vg/lv

Answer: D

NEW QUESTION 6

A junior systems administrator is upgrading a package that was installed on a Red Hat-based system. The administrator is tasked with the following:
Update and install the new package.

Verify the new package version is installed.

Which of the following should be done to BEST accomplish these task? (Choose two.)

- A. yum install <package name>
- B. yum upgrade
- C. rpm -e <package name>
- D. rpm -qa
- E. apt-get <package name>
- F. apt-get upgrade

Answer: AD

NEW QUESTION 7

A Linux administrator is setting up a testing environment and needs to connect to a separate testing server using the production server name. The administrator needs to override the hostname that the DNS is returning in order to use the test environment. Which of the following commands should be run on each of the testing systems to BEST meet this goal?

- A. # hostnamectl set-hostname "192.168.1.100 production.company.com"
- B. # grep -i IP "\${ip addr show} production.company.com" > /etc/resolv.conf
- C. # ip addr add 192.168.1.100/24 dev eth0 && rndc reload production.company.com
- D. # echo "192.168.1.100 production.company.com" >> /etc/hosts

Answer: A

NEW QUESTION 8

A Linux administrator needs the "tech" account to have the option to run elevated commands as root. Which of the following commands would BEST meet this goal?

- A. \$ su - tech -c "/bin/bash"
- B. # usermod -aG wheel tech
- C. # sudo -l tech
- D. # groupadd -u tech -g root

Answer: C

NEW QUESTION 9

A Linux server needs to be accessed, but the root password is not available.

Which of the following would BEST allow an administrator to regain access and set a new known password at the same time?

- A. Boot into a single-user mode and reset the password via the passwd command.
- B. Boot into a single-user mode and reset the password by editing the /etc/passwd file.
- C. Boot into a single-user mode and reset the password by editing the /etc/shadow file.
- D. Boot into a single-user mode and reset the password via the chage command.

Answer: A

NEW QUESTION 10

A Linux systems administrator is setting up SSH access with PKI for several using their newly created RSA keys. Which of the following MOST securely achieves this task?

- A. Use curl to copy each user's public key file to the respective system
- B. Use cp to copy each user's public key file to the respective system
- C. Use ssh-copy-id to copy each user's public key file to the respective system
- D. Use ssh-copy-id to copy each user's private key file to the respective system

Answer: C

NEW QUESTION 10

A systems administrator wants to know the current status of a series of dd jobs that were started in the background three hours ago.

Which of the following commands will achieve this task?

- A. sudo killall -HUP dd
- B. sudo killall dd
- C. sudo killall -TERM dd
- D. sudo killall -USR1 dd

Answer: D

NEW QUESTION 14

Which of the following would be the BEST solution for a systems administrator to access the graphical user environment of a Linux machine remotely?

- A. VNC
- B. KDE
- C. X11
- D. RPC

Answer: A

NEW QUESTION 19

Given the output below:

```
drwxr-xr-x. 4096 user1 user1 Documents
drwxr-xr-x. 4096 user1 user1 Music
lrwxrwxrwx. 1 root root MyPhoto.jpg ->/Pictures/photo.jpg
drwxr-xr-x. 4096 user1 user1 Pictures
-rw-r--r--. 256 user1 user1 text.txt
-rw-r--r--. 35 user1 user1 tmp.tmp
```

Which of the following commands can be used to remove MyPhoto.jpg from the current directory?

- A. unlink ./MyPhoto.jpg
- B. del Pictures/photo.jpg
- C. rm -rf ./Pictures
- D. rm -f MyPhoto.jpg
- E. ln -rm ./Pictures/photo.jpg

Answer: E

NEW QUESTION 24

Which of the following is the purpose of the vmlinux file on a Linux system?

- A. To prevent a Linux kernel panic
- B. To start a Linux virtual machine
- C. To provide the executable kernel for the system
- D. To enable resource access to the network

Answer: C

NEW QUESTION 28

An administrator has modified the configuration file for a service. The service is still running but is not using the new configured values. Which of the following will BEST remediate this issue?

- A. kill -HUP
- B. init 0
- C. service start
- D. renice -10

Answer: A

NEW QUESTION 32

A junior Linux administrator is trying to verify connectivity to the remote host host1 and display round-trip statistics for ten ICMP. Which of the following commands should the administrator execute?

- A. ping -c 10 host1
- B. traceroute -c 10 host1
- C. netstat host1
- D. pathping -c 10 host1

Answer: A

NEW QUESTION 36

A company wants to ensure that all newly created files can be modified only by their owners and that all new directory content can be changed only by the creator

of the directory. Which of the following commands will help achieve this task?

- A. umask 0022
- B. umask 0012
- C. chmod -R 0644 /
- D. chmod -R 0755 /

Answer: A

NEW QUESTION 40

A Linux administrator is using a public cloud provider to host servers for a company's website. Using the provider's tools, the administrator wrote a JSON file to define how to deploy the servers. Which of the following techniques did the administrator use?

- A. Infrastructure as code
- B. Build automation
- C. Platform as a service
- D. Automated configuration

Answer: B

NEW QUESTION 45

A systems administrator needs to install a new piece of hardware that requires a new driver. The driver should be manually installed. Which of the following describes the order of commands required to obtain module information, install the module, and check the log for any errors during module installation?

- A. lsmod, modprobe, modinfo
- B. modinfo, insmod, modprobe
- C. modinfo, insmod, dmesg
- D. lsmod, insmod, dmesg

Answer: A

NEW QUESTION 50

A Linux administrator needs to remotely update the contents of the `www.comptia.org/contacts` URL. Which of the following commands would allow the administrator to download the current contents of the URL before updating?

- A. `curl www.comptia.org/contacts`
- B. `dig www.comptia.org/contacts`
- C. `apt-get www.comptia.org/contacts`
- D. `yum list www.comptia.org/contacts`

Answer: A

NEW QUESTION 54

An operator finds a user is having issues with opening certain files. Which of the following commands would allow the security administrator to list and check the SELinux context?

- A. `ls -D`
- B. `ls -a`
- C. `ls -Z`
- D. `ls -l`

Answer: C

NEW QUESTION 55

A Linux administrator wants to obtain a list of files and subdirectories in the `/etc` directory that contain the word "services". Once the files and subdirectories are discovered, they should be listed alphabetically in the `/var/tmp/foundservices` file. Which of the following shell scripts will accomplish this task?

- A. `#!/bin/bashfind /etc -name services | sort > /var/tmp/foundservices`
- B. `#!/bin/bashlocate /etc -sort -name services > /var/tmp/foundservices`
- C. `#!/bin/bashfind -name services -sort </var/tmp/foundservices`
- D. `#!/bin/bashfind /etc -name services -sort > /var/tmp/foundservices`

Answer: B

NEW QUESTION 59

An administrator needs to mount the shared NFS file system `testhost:/testvolume` to mount point `/mnt/testvol` and make the mount persistent after reboot. Which of the following BEST demonstrates the commands necessary to accomplish this task?

- A.

```
#!/bin/bash
# mkdir -p /mnt/testvol

# echo "testhost:/testvolume /mnt/testvol nfs defaults 0 0" >> /etc/fstab

# mount -a
```

B.

- ```
mkdir /mnt/testvol

mount testhost:/testvolume /mnt/testbol
```
- C.
- ```
# mkdir testhost:/testvolume at /mnt/testvol

# mount -a
```
- D.
- ```
mkdir /mnt/testvol

echo "testhost:/testvolume /mnt/testvol" >> /mnt/mnttab

mount -a
```

Answer: C

#### NEW QUESTION 61

An administrator needs to change the IP address on a server remotely. After updating the configuration files, a network restart is needed. However, the administrator fears that when the network connection drops, the network restart script will be killed before the new IP address has been set. Which of the following commands would prevent the script from being killed?

- A. nohup service network restart
- B. service network restart &
- C. echo "service network restart" | at now
- D. dg service network restart

Answer: A

#### NEW QUESTION 62

An administrator notices that a long-running script, /home/user/script.sh, is taking up a large number of system resources. The administrator does not know the script's function. Which of the following commands should the administrator use to minimize the script's impact on system resources?

- A. renice
- B. kill
- C. bg
- D. nohup

Answer: A

#### NEW QUESTION 66

An administrator reviews the following configuration file provided by a DevOps engineer:

```
Tasks:
- name:Install php-fpm from repo
 yum:
 name: php-fpm
 state: present
- name:Install mysql from repo
 yum:
 name: mysql-server
 state: present
```

Which of the following would the application parsing this file MOST likely have to support?

- A. YAML
- B. AJAX
- C. JSON
- D. SOAP

Answer: C

#### NEW QUESTION 70

A Linux administrator needs to take stock of USB devices attached to the system. Which of the following commands would be BEST to complete this task?

- A. lspci
- B. lsusb
- C. cat /proc/USB
- D. modprobe --usb

Answer: B

**NEW QUESTION 75**

Which of the following are Linux desktop managers? (Choose two.)

- A. KDE
- B. GNOME
- C. GUI
- D. VNC
- E. X11
- F. SPICE

**Answer:** AB

**NEW QUESTION 79**

A Linux systems administrator wants the ability to access systems remotely over SSH using RSA authentication. to which of the following files should the RSA token be added to allow this access?

- A. authorized\_keys
- B. ~/.ssh/ssh\_config
- C. id\_rsa.pub
- D. known\_hosts

**Answer:** C

**NEW QUESTION 83**

An administrator needs to see a list of the system user's encrypted passwords. Which of the following Linux files does the administrator need to read?

- A. /etc/shadow
- B. /etc/skel
- C. /etc/passwd
- D. /etc/pw

**Answer:** C

**NEW QUESTION 87**

After installing a new web server, you are unable to browse to the default web page. INSTRUCTIONS

Review all the command output and select the command needed to remediate the issue.

If at any time you would like to bring back the initial state of the simulation, please click the Reset All button.

| Commands                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Answer                                                                                                                                                                                                                                                                                                                                                                                            |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <pre>[root@webserver log]# getenforce [root@webserver log]# getsebool -a   grep httpd [root@webserver log]# netstat -antp [root@webserver log]# ss -antp [root@webserver log]# ps -ef   grep nginx [root@webserver log]# grep avc /var/log/audit/audit.log [root@webserver log]# more /var/log/web/access_log [root@webserver log]# more /var/log/web/error_log [root@webserver log]# ls -la [root@webserver log]# journalctl -u nginx -l [root@webserver log]# systemctl status webserver [root@webserver log]# sealer</pre> | <pre>[root@webserver log]# systemctl restart nginx setsebool -P httpd_read_user_content =1 restorecon -rv /home/comptia/html kill -HUP 3431 sysctl -w net.ipv4 ip_forward = 1 chown -R comptia: /home/comptia/html/ firewall-cmd --zone=public --service=http --permanent chmod 777 /home/comptia/html/ setfacl -m g:comptia:rwX /home/comptia/html/ cp -R /home/comptia/html /var/www/html</pre> |
| <p><b>Output</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                   |

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

| Commands                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Answer                                                                                                                                                                                                                                                                                                                                                                                            |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <pre>[root@webserver log]# getenforce [root@webserver log]# getsebool -a   grep httpd [root@webserver log]# netstat -antp [root@webserver log]# ss -antp [root@webserver log]# ps -ef   grep nginx [root@webserver log]# grep avc /var/log/audit/audit.log [root@webserver log]# more /var/log/web/access_log [root@webserver log]# more /var/log/web/error_log [root@webserver log]# ls -la [root@webserver log]# journalctl -u nginx -l [root@webserver log]# systemctl status webserver [root@webserver log]# sealer</pre> | <pre>[root@webserver log]# systemctl restart nginx setsebool -P httpd_read_user_content =1 restorecon -rv /home/comptia/html kill -HUP 3431 sysctl -w net.ipv4 ip_forward = 1 chown -R comptia: /home/comptia/html/ firewall-cmd --zone=public --service=http --permanent chmod 777 /home/comptia/html/ setfacl -m g:comptia:rwX /home/comptia/html/ cp -R /home/comptia/html /var/www/html</pre> |
| <p>Output</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                   |

#### NEW QUESTION 92

Which of the following is the template for the grub.cfg file?

- A. /etc/default/grub
- B. /etc/grub2.cfg
- C. /etc/sysct1.conf
- D. /boot/efi

Answer: A

#### NEW QUESTION 95

A Linux systems administrator needs to copy the contents of a directory named "working" on the local working system to a folder /var/www/html on a server named "corporate-web".

Which of the following commands will allow the administrator to copy all the contents to the web server?

- A. scp -r working/\* webuser@corporate-web:/var/www/html
- B. tar working/\* webuser@corporate-web:/var/www/html
- C. cp -r working/\* webuser@corporate-web:/var/www/html
- D. mv working webuser@corporate-web:/var/www/html

Answer: A

#### NEW QUESTION 98

A junior administrator is migrating a virtual machine from a Type 1 hypervisor to a Type 2 hypervisor. To ensure portability, which of the following formats should the administrator export from the Type 1 hypervisor to ensure compatibility?

- A. OWASP
- B. VDI
- C. VMDK
- D. OVA

Answer: D

#### NEW QUESTION 103

A system administrator has deployed a Linux server based on an Anaconda process with all packages and custom configurations necessary to install a web server role.

Which of the following could be used to install more Linux servers with the same characteristics?

- A. /etc/sysconfig/anaconda/cfg
- B. /root/anaconda.auto
- C. /root/anaconda-ks.cfg
- D. /etc/sysconfig/installation.cfg

Answer: C

**NEW QUESTION 106**

Joe, a user, is unable to log in to the server and contracts the systems administrator to look into the issue. The administrator examines the /etc/passwd file and discovers the following entry:

```
joe:x:505:505::/home/joe:/bin/false
```

Which of the following commands should the administrator execute to resolve the problem?

- A. usermod -s /bin/bash joe
- B. passwd -u joe
- C. useradd -s /bin/bash joe
- D. chage -E -1 joe

**Answer: B**

**NEW QUESTION 110**

All users are reporting that they cannot connect to the SFTP server. The administrator runs a scan:

```
starting nmap 4.11 at 2018-06-16 EST
not shown: 1456 closed ports
```

| PORT    | STATE | SERVICE |
|---------|-------|---------|
| 53/tcp  | open  | dns     |
| 80/tcp  | open  | http    |
| 957/tcp | open  | unknown |

```
MAC Address 08:00:00:00:00:00 (computer systems)
nmap finished = 1 ip address (1 host up) scanned in 1.497 seconds
You have mail in /var/spool/mail/root
```

Which of the following would allow the administrator to fix the problem?

- A. Allow SFTP connections on port 22 using /etc/sysconfig/iptables.
- B. Allow SFTP connections on port 20 and 21 using /etc/sysconfig/iptables.
- C. Allow SFTP connections on port 25 using /etc/sysconfig/iptables.
- D. Allow SFTP connections on port 1456 using /etc/sysconfig/iptables.

**Answer: A**

**NEW QUESTION 115**

Two specific users need access to a directory owned by root where backups are located. Which of the following commands would BEST ensure the specified users can access the backup files?

- A. umask
- B. chcon
- C. chmod
- D. setfacl

**Answer: D**

**NEW QUESTION 119**

A junior Linux administrator is updating local name resolution to support IPv6. The administrator issues the command cat /etc/hosts and receives the following output: 127.1.1.1 localhost

Which of the following actions should the administrator perform to accomplish this task?

- A. Modify the /etc/hosts file, and add the ipv6 localhost entry to the file.
- B. Modify the /etc/hosts file, and add the ::1 localhost entry to the file.
- C. Modify the /etc/hosts file, and add the ipv4 localhost entry to the file.
- D. Modify the /etc/hosts file, and add the 0.0.0.0 localhost entry to the file.

**Answer: D**

**NEW QUESTION 123**

A technician wants to secure a sensitive workstation by ensuring network traffic is kept within the local subnet. To accomplish this task, the technician executes the following command:

```
echo 0 > /proc/sys/net/ipv4/ip_default_ttl
```

Which of the following commands can the technician use to confirm the expected results? (Choose two.)

- A. tcpdump
- B. traceroute
- C. route
- D. iperf
- E. ip
- F. arp

**Answer:** CF

**NEW QUESTION 128**

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