

XK0-004

Number: XK0-004
Passing Score: 800
Time Limit: 120 min
File Version: 1

XK0-004



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Exam A

QUESTION 1

Which of the following is the BEST reason for not storing database files in the `/var` directory?



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- A. The `/var` filesystem is not fast enough for database files.
- B. The number of files in `/var` is limited by the available inodes.
- C. Files in `/var` do not have strict file permissions.
- D. If log files fill up `/var`, it might corrupt the database.

Correct Answer: D

Section: (none)

Explanation

Explanation/Reference:

QUESTION 2

A systems administrator needs to append output of `ls -lha /opt` command to the contents of a `test.txt` file. Which of the following commands will accomplish this?

- A. `ls -lha /opt > test.txt`
- B. `ls -lha /opt < test.txt`
- C. `ls -lha /opt >> test.txt`
- D. `ls -lha /opt << test.txt`

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:

Reference: <https://www.cyberciti.biz/faq/linux-append-text-to-end-of-file/>

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QUESTION 3

Which of the following BEST describes containers running on a Linux system?

- A. Containers only need the namespaces functionality to run on a Linux system available since kernel 2.6.
- B. Containers need a hypervisor to run on a Linux system. Cgroups namespaces are functionalities used for the kernel but not for running containers.
- C. Containers only need the cgroups functionality for running on a Linux system. Namespaces is not a Linux kernel functionality needed for creating and managing containers.
- D. Containers use the cgroups and namespaces functionalities to isolate processes and assign hardware resources to each of those isolated processes.

Correct Answer: D

Section: (none)

Explanation

Explanation/Reference:

Reference: <https://www.linuxjournal.com/content/everything-you-need-know-about-linux-containers-part-ii-working-linux-containers-lxc>

QUESTION 4

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

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:

Reference: http://www.linfo.org/runlevel_def.html

QUESTION 5

A junior systems administrator is configuring localization option environment variables. The administrator is given a checklist of tasks with the following requirements:

- View current settings of the `LC_ALL` environment variable only.
- Modify the `LANG` environment variable to US English Unicode.

Given this scenario, which of the following should be performed to meet these requirements? (Choose two.)

- A. echo \$LC_ALL
- B. locale
- C. cat \$LC_ALL
- D. export LANG = en_US.UTF-8
- E. export \$LANG = en_US.UTF
- F. stty

Correct Answer: BD

Section: (none)

Explanation

Explanation/Reference:

Reference: <https://www.tecmint.com/set-system-locales-in-linux/>

QUESTION 6

A Linux administrator is testing a new web application on a local laptop and consistently shows the following 403 errors in the laptop's logs:

```
type=AVC msg=audit(126552035:37232):avc:denied {read} for pid=24941 com=nginx nme="/home/user1" /dev/sda1  
ino=2 scontext=unconfined_u:system_r:httpd_t:s0 tcontext=system_u:object_r:httpd_sys_content:s0
```

The web server starts properly, but an error is generated in the audit log. Which of the following settings should be enabled to prevent this audit message?

- A. httpd_can_network_connect = 1
- B. httpd_enable_scripting = 1
- C. httpd_enable_homedirs = 1
- D. httpd_enable_cgi = 1

Correct Answer: A

Section: (none)

Explanation

Explanation/Reference:

QUESTION 7

Which of the following BEST describes the purpose of the X11 system?

- A. X11 provides graphical display capabilities

- B. X11 provides command line capabilities
- C. X11 provides networking capabilities
- D. X11 provides telephony capabilities.

Correct Answer: A

Section: (none)

Explanation

Explanation/Reference:

Reference: https://en.wikipedia.org/wiki/X_Window_System

QUESTION 8

A junior administrator needs to unload an older video kernel module.

Which of the following commands would BEST accomplish this task?

- A. modprobe
- B. insmod
- C. rmmod
- D. chmod
- E. depmod

Correct Answer: A

Section: (none)

Explanation

Explanation/Reference:

Reference: https://access.redhat.com/documentation/en-US/Red_Hat_Enterprise_Linux/7/html/Kernel_Administration_Guide/sec-Unloading_a_Module.html

QUESTION 9

A Linux administrator needs to set permissions on an application with the following parameters:

- The owner of the application should be able to read, write, and execute the application.
- Members of the group should be able to read and execute the application.
- Everyone else should not have access to the application.

Which of the following commands would BEST accomplish these tasks?

- A. `chmod 710 <application name>`

- B. `chmod 730 <application name>`
- C. `chmod 750 <application name>`
- D. `chmod 760 <application name>`

Correct Answer: D

Section: (none)

Explanation

Explanation/Reference:

QUESTION 10

A junior Linux administrator is trying to verify connectivity to the remote host `host1` and display round-trip statistics for ten ICMP requests.

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`

Correct Answer: A

Section: (none)

Explanation

Explanation/Reference:

Reference: <https://shapedshed.com/unix-ping/>

QUESTION 11

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:

```
127.0.0.1      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.

Correct Answer: D

Section: (none)

Explanation

Explanation/Reference:

QUESTION 12

A systems administrator has received reports of intermittent network connectivity to a particular website. Which of the following is the BEST command to use to characterize the location and type of failure over the course of several minutes?

- A. `mtr www.comptia.org`
- B. `tracert www.comptia.org`
- C. `ping www.comptia.org`
- D. `netstat www.comptia.org`

Correct Answer: B

Section: (none)

Explanation

Explanation/Reference:

Reference: <https://www.lifewire.com/traceroute-linux-command-4092586>

QUESTION 13

A systems administration team has decided to their systems as immutable instances. They keep the desired state of each of their systems in version control and apply automation whenever they provision a new instance. If there is an issue with one of their servers, instead of troubleshooting the issue they terminate the instance and rebuild it using automation.

Which of the following is this an example of?

- A. Inventory
- B. Orchestration
- C. Infrastructure as code
- D. Agentless deployment

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:

QUESTION 14

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

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:

Reference: <https://www.digitalocean.com/community/tutorials/how-to-configure-ssh-key-based-authentication-on-a-linux-server>

QUESTION 15

An administrator needs to create a shared directory in which all users are able to read, write, and execute its content but none of the regular users are able to delete any content.



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Which of the following permissions should be applied to this shared directory?

- A. rwxrwxrwt
- B. rwxrwxrws
- C. rwxrwxrwx
- D. rwxrwxrwx*

Correct Answer: C

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Section: (none)

Explanation

Explanation/Reference:

QUESTION 16

Which of the following will provide a list of all flash, external, internal, and SSD drives?

- A. lspci
- B. lsmod
- C. lsblk
- D. lsusb

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:

Reference: <https://www.linux.com/learn/intro-to-linux/2017/3/how-format-storage-devices-linux>

QUESTION 17

Which of the following configuration management tools is considered agentless?

- A. Puppet
- B. Salt
- C. Ansible
- D. Chef

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:

Reference: <https://www.intigua.com/blog/puppet-vs.-chef-vs.-ansible-vs.-saltstack>

QUESTION 18

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

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:

QUESTION 19

A junior administrator of a physical server receives log messages indicating the out-of-memory killer has been active. All memory slots are in use on the motherboard, but additional disk space is available. Space has been allocated for a swap file.

Which of the following should the administrator use to reduce the output of memory messages?

- A. `free : swapoff / swapfile ; swapon -a`
- B. `mkswap /swapfile; swapon -a`
- C. `fallocate -l 2G /swapfile && swapon -a`
- D. `echo "1" > /proc/meminfo ; swapon / swapfile`

Correct Answer: A

Section: (none)

Explanation

Explanation/Reference:

QUESTION 20

A systems 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`

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:

Reference: https://access.redhat.com/documentation/en-us/red_hat_enterprise_linux/6/html/installation_guide/sn-automating-installation

QUESTION 21

A Linux administrator 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`

Correct Answer: B

Section: (none)

Explanation

Explanation/Reference:

QUESTION 22

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`

Correct Answer: D

Section: (none)

Explanation

Explanation/Reference:

Reference: <https://askubuntu.com/questions/215505/how-do-you-monitor-the-progress-of-dd>

QUESTION 23

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 -i tech`
- D. `# groupadd -u tech -g root`

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:

QUESTION 24

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

Correct Answer: B

Section: (none)

Explanation

Explanation/Reference:

Reference: <https://linuxhint.com/list-usb-devices-linux/>

QUESTION 25

In order to comply with new security policies, an administrator needs to prevent the SSH server from using insecure algorithms.

Which of the following files should be edited to accomplish this?

- A. /etc/ssh/sshd_config
- B. /etc/ssh/ssh_config
- C. ~/.ssh/ssh_config
- D. /etc/ssh/known_hosts

Correct Answer: A

Section: (none)

Explanation

Explanation/Reference:

QUESTION 26

Which of the following configuration files should be modified to disable Ctrl+Alt+Del in Linux?

- A. /etc/inittab
- B. ~/.bash_profile
- C. /etc/securetty
- D. /etc/security/limits.conf

Correct Answer: A

Section: (none)

Explanation

Explanation/Reference:

Reference: <https://www.linuxtechi.com/disable-reboot-using-ctrl-alt-del-keys/>

QUESTION 27

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`

Correct Answer: B

Section: (none)

Explanation

Explanation/Reference:

Reference: <https://doc.lagout.org/security/McGraw-Hill%20-%20Hacking%20Exposed%2C%203rd%20Ed%20-%20Hacking%20Exposed%20Win2.pdf> (303)

QUESTION 28

A server is almost out of free memory and is becoming unresponsive. Which of the following sets of commands will BEST mitigate the issue?

- A. `free`, `fack`, `partprobe`
- B. `lsof`, `lvcreate`, `mdadm`
- C. `df`, `du`, `rmmod`
- D. `fdisk`, `mkswap`, `swapon -a`

Correct Answer: A

Section: (none)

Explanation

Explanation/Reference:

Reference: <https://vitux.com/7-commands-to-check-swap-space-in-debian-10/>

QUESTION 29

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

Correct Answer: B

Section: (none)

Explanation

Explanation/Reference:

Reference: <https://cloud.google.com/cloud-build/docs/build-config>

QUESTION 30

A Linux system is running normally when the systems administrator receives an alert that one application spawned many processes. The application is consuming a lot of memory, and it will soon cause the machine to become unresponsive. Which of the following commands will stop each application process?

- A. `kill `pidof application``
- B. `killall application`
- C. `kill -9 `ps -aux | grep application``
- D. `pkill -9 application`

Correct Answer: B

Section: (none)

Explanation

Explanation/Reference:

Reference: <https://www.tecmint.com/how-to-kill-a-process-in-linux/>

QUESTION 31

A junior Linux administrator is installing patches using YUM. The administrator issues the following command:

```
yum list installed
```

The output of the command is as follows:

```
Loaded plugins: fastmirror, langpacks
Existing lock /var/run/yum.pid: another copy is running as pid 5180.
Another app is currently holding the yum lock; waiting for it to exit...
The other application is yum
Memory: 26 M RSS (r415 MB VSZ)
Started: Fri Jun 15 08:05:15 2018 - 2:18:48 ago
State: Traced/Stopped pid: 5180
```

Given this scenario and the output, which of the following should the administrator do to address this issue?

- A. `renice -n 9 -p 5180`
- B. `killall yum`
- C. `ps -ef | grep yum`
- D. `top | grep yum`

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:

Reference: <https://www.thegeekdiary.com/yum-command-fails-with-another-app-is-currently-holding-the-yum-lock-in-centos-rhel-7/>

QUESTION 32

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`

Correct Answer: D

Section: (none)

Explanation

Explanation/Reference:

QUESTION 33

Which of the following is the purpose of the monitoring server role?

- A. To aggregate web traffic to watch which websites employees are visiting
- B. To collect status and performance information about the servers in an environment
- C. To provide user authentication services to a network
- D. To provide real-time analysis of potential threats to the organization

Correct Answer: B

Section: (none)

Explanation

Explanation/Reference:

QUESTION 34

A Linux administrator implemented a new HTTP server using the default configuration. None of the users on the network can access the server. If there is no problem on the network or with the users' workstations, which of the following steps will BEST analyze and resolve the issue?

- A. Run `netstat` to ensure the port is correctly bound, and configure the firewall to allow access on ports 80 and 443
- B. Run `route` to ensure the port is correctly bound, and configure the firewall to allow access on ports 80 and 443
- C. Run `netcat` to ensure the port is correctly bound, and configure a static route to the web to allow access on ports 80 and 443
- D. Run `route` to ensure the port is correctly bound, and configure SELinux to allow access on ports 80 and 443

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:

Reference: <https://www.varonis.com/blog/netcat-commands/>

QUESTION 35

A Linux storage administrator wants to create a logical volume group. Which of the following commands is required to start the process?

- A. `pvcreate`
- B. `vgcreate`
- C. `lvcreate`

D. `mkfs.xfs`

Correct Answer: B

Section: (none)

Explanation

Explanation/Reference:

Reference: <https://www.thegeekstuff.com/2010/08/how-to-create-lvm/>

QUESTION 36

A Linux administrator needs to back up the folder `/usr/domain`, and the output must be a gzip compressed tar. Which of the following commands should be used?

- A. `tar -cv domain.tar.gz /usr/domain`
- B. `tar -cvf /usr/domain domain.tar.gz`
- C. `tar -czvf domain.tar.gz /usr/domain`
- D. `tar -cxzv /usr/domain domain.tar.gz`

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:

Reference: <https://help.ubuntu.com/community/BackupYourSystem/TAR>

QUESTION 37

Which of the following statements BEST represents what the term “agentless” means regarding orchestration?

- A. Installation of a tool is not required on the remote system to perform orchestration tasks
- B. It facilitates version control when using infrastructure as code during orchestration
- C. It automatically removes malware from the remote system during orchestration
- D. A tool can only be accessed remotely to perform orchestration tasks

Correct Answer: A

Section: (none)

Explanation

Explanation/Reference:

Reference: <https://whatis.techtarget.com/definition/agentless>

QUESTION 38

Given that a company's policy states that users cannot install third-party tools on Window servers, which of the following protocols will allow a Linux GUI to connect to a Windows server?

- A. VNC
- B. NX
- C. RDP
- D. X11

Correct Answer: A

Section: (none)

Explanation

Explanation/Reference:

Reference: <https://phoenixnap.com/kb/ssh-to-connect-to-remote-server-linux-or-windows>

QUESTION 39

Ann, a junior Linux administrator, needs to copy software from her local machine to assist in developing a software application on a remote machine with the IP address 192.168.3.22. The file needs to be placed on the `/tmp` directory. After downloading the RPM to the local machine, which of the following commands would be BEST to use to copy the software?

- A. `scp ~/software.rpm USER@192.168.3.22:/tmp`
- B. `scp ~/software.rpm USER@192.168.3.22: /tmp`
- C. `wget USER@192.168.3.22:/tmp -f ~/software.rpm`
- D. `scp USER@192.168.3.22 ~/software.rpm :/tmp`

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:

Reference: <https://linuxize.com/post/wget-command-examples/>

QUESTION 40

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



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Correct Answer: D

Section: (none)

Explanation

Explanation/Reference:

QUESTION 41

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/bash
find /etc -name services | sort > /var/tmp/foundservices
```
- B.

```
#!/bin/bash
locate /etc -sort -name services > /var/tmp/foundservices
```
- C.

```
#!/bin/bash
find -name services -sort </var/tmp/foundservices
```
- D.

```
#!/bin/bash
find /etc -name services -sort > /var/tmp/foundservices
```

Correct Answer: B

Section: (none)

Explanation

Explanation/Reference:

QUESTION 42

A new HTTPS web service is being deployed on a server. Which of the following commands should the Linux administrator use to ensure traffic is able to flow

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through the system firewall to the new service?

- A. `iptables -I OUTPUT -p tcp --sport 443 -j ACCEPT`
- B. `iptables -A INPUT -p tcp --dport 443 -j ACCEPT`
- C. `iptables -I INPUT --dport 443 -j ACCEPT`
- D. `iptables -A OUTPUT -p tcp --dport 443 -j ACCEPT`

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:

Reference: <https://www.linode.com/docs/security/firewalls/control-network-traffic-with-iptables/>

QUESTION 43

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`

Correct Answer: A

Section: (none)

Explanation

Explanation/Reference:

QUESTION 44

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`

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:

Reference: <https://www.cyberciti.biz/faq/where-are-the-passwords-of-the-users-located-in-linux/>

QUESTION 45

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

Correct Answer: A

Section: (none)

Explanation

Explanation/Reference:

Reference: https://access.redhat.com/documentation/en-us/red_hat_enterprise_linux/7/html/networking_guide/sec_configuring_host_names_using_hostnamectl

QUESTION 46

A Linux administrator opens a ticket to have an external hard drive mounted. As a security policy, external storage kernel modules are disabled.

Which of the following is the BEST command for adding the proper kernel module to enable external storage modules?

- A. rmmod /lib/modules/3.6.12-100-generic/kernel/drivers/usb/storage/usb-storage.ko
- B. modinfo /lib/modules/3.6.12-100-generic/kernel/drivers/usb/storage/usb-storage.ko
- C. depmod /lib/modules/3.6.12-100-generic/kernel/drivers/usb/storage/usb-storage.ko
- D. insmod /lib/modules/3.6.12-100-generic/kernel/drivers/usb/storage/usb-storage.ko

Correct Answer: D

Section: (none)

Explanation

Explanation/Reference:

Reference: <https://www.cyberciti.biz/faq/linux-how-to-load-a-kernel-module-automatically-at-boot-time/>

QUESTION 47

A user has connected a Bluetooth mouse to a computer, but it is not working properly. Which of the following commands should the systems administrator use to fix the issue?

- A. `lsmod -i bluetooth`
- B. `insmod bluetooth`
- C. `modprobe -r bluetooth`
- D. `depmod -i bluetooth`

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:

QUESTION 48

An engineer is working on a production application deployment that requires changing a web application property file called `server.property` that is managed by the Git version control system. A cloned copy of the remote repository in which the `server.property` file exists is on the local desktop computer. The engineer makes appropriate changes to the files, saves it as `server.property`, and executes `git commit -m "changed the property file"` `server.property`. Which of the following commands did the engineer fail to perform?

- A. `git init server.property`
- B. `git merge server.property`
- C. `git add server.property`
- D. `git push server.property`

Correct Answer: D

Section: (none)

Explanation

Explanation/Reference:

Reference: <https://www.earthdatascience.org/workshops/intro-version-control-git/basic-git-commands/>

QUESTION 49

A systems administrator is unable to reach other devices on the network and the Internet. The server is configured with the IP address 192.169.1.50/24 on `eth0`. The server's router is 192.168.1.1. The administrator reviews the output of `route -n`:

Kernel IP routing table

Destination	Gateway	Genmask	Flags	Metric	Ref	Use	Iface
0.0.0.0	192.168.2.1	0.0.0.0	UG	1024	0	0	eth0
192.168.1.0	0.0.0.0	255.255.255.0	U	0	0	0	eth0

Which of the following commands should the administrator run to correct the issue?

- A. `route del default gw 192.168.2.1 eth0; route add default gw 192.168.1.1 eth0`
- B. `route add -net 192.168.10.0 netmask 255.255.255.0 gw 192.168.2.1 eth0`
- C. `route add 192.168.1.1 default 192.168.1.50 eth0`
- D. `route host gw 192.168.1.1 eth0`

Correct Answer: B

Section: (none)

Explanation

Explanation/Reference:

QUESTION 50

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

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:

Reference: <https://www.linode.com/docs/security/authentication/use-public-key-authentication-with-ssh/>

QUESTION 51

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

Correct Answer: CF

Section: (none)

Explanation

Explanation/Reference:

QUESTION 52

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:

```
ChainINPUT (policyACCEPT)
```

target	prot	opt	source	destination	
ACCEPT	tcp	--	anywhere	anywhere	tcp dpt:webcache

```
Chain FORWARD (policy ACCEPT)
```

target	prot	opt	source	destination	
ACCEPT	tcp	--	anywhere	anywhere	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

Correct Answer: D

Section: (none)

Explanation

Explanation/Reference:

QUESTION 53

A junior systems administrator created a new filesystem `/dev/sda1` with mountpoint `/data` and added it to the `/etc/fstab` for auto-mounting.

When the systems administrator tries to mount the file system, the system refuses. Given the output below:

```
/dev/mapper/VolGroup00-Log-Vol00 / xfs defaults 0 0
/dev/sda1 /data xfs noauto,dev,sync,ro,nosuid 0 0
/dev/mapper/VolGroup00-Log-Vol101 swap swap defaults 0 0
/dev/sda2 /mine ext4 auto,suid,sync,rw,dev 0 0
```

Which of the following steps is necessary?

- A. Change the filesystem from `/dev/sda1` to `/dev/sda2` and reboot.
- B. Change the options to `auto,dev,sync,rw,nosuid` and run the `mount -a` command.
- C. Change the mount point to `data` and reboot.
- D. Change the dump column to 1 and run the `mount -a` command.

Correct Answer: B

Section: (none)

Explanation

Explanation/Reference:

QUESTION 54

An analyst is trying to determine which public IP addresses are managed by Company A, but the script is not working correctly.

```
for ip in $(cat ip-list.txt)
do whois $ip | grep "Company A" > /dev/null
    if [ $? -ne 0 ]
        then echo "$ip"
    fi
done
```

Which of the following explains what is wrong with the script?

- A. `$(cat ip-list.txt)` should be changed to ``cat ip-list.txt`` in the `for` statement.
- B. The `for` should be changed to `while` in the loop.
- C. The `>` should be changed to `2>` in the `do` statement.
- D. The `-ne` flag should be changed to `-eq` in the `if` statement.

Correct Answer: A

Section: (none)

Explanation

Explanation/Reference:

QUESTION 55

A configuration management tool running every minute is enforcing the service HTTPd to be started. To perform maintenance, which of the following series of commands can be used to prevent the service from being started?

- A. `systemctl stop httpd && systemctl mask httpd`
- B. `systemctl disable httpd && systemctl mask httpd`
- C. `systemctl stop httpd && systemctl hide httpd`
- D. `systemctl disable httpd && systemctl hide httpd`

Correct Answer: A

Section: (none)

Explanation

Explanation/Reference:

QUESTION 56

A four-drive Linux NAS has been improperly configured. Each drive has a capacity of 6TB, for a total storage capacity of 24TB. To reconfigure this unit to be not pluggable for drive replacement and provide total storage of 11TB to 12TB, which of the following would be the correct RAID configuration?

- A. RAID 01
- B. RAID 03
- C. RAID 10
- D. RAID 50

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:

