CompTIA

Exam Questions XK0-005

CompTIA Linux+ Certification Exam

NEW QUESTION 1
Which of the following data structures is written in JSON?
A)
```
---
name: user1
position: DevOps
floor: 3
```

B)
```
<table>
<tbody><tr>
<td>user1</td>
<td>DevOps</td>
<td>3</td>
</tr>
</tbody></table>
```

C)
```
<root>
    <floor>3</floor>
    <name>user1</name>
    <position>DevOps</position>
</root>
```

D)
```
{
    "name": "user1",
    "job": "DevOps",
    "floor": 3
}
```

A. Option A
B. Option B
C. Option C
D. Option D

Answer: D

NEW QUESTION 2
Rugged appliances are small appliances with ruggedized hardware and like Quantum Spark appliance they use which operating system?

A. Centos Linux
B. Gaia embedded
C. Gaia
D. Red Hat Enterprise Linux version 5

Answer: B

NEW QUESTION 3
A systems administrator pressed Ctrl+Z after starting a program using the command line, and the shell prompt was presented. In order to go back to the program, which of the following commands can the administrator use?

A. fg
B. su
C. bg
D. ed

Answer: A

Explanation:
Ctrl+Z suspended the process, and "fg" will bring it back into the foreground of the shell

NEW QUESTION 4
A cloud engineer needs to change the secure remote login port from 22 to 49000. Which of the following files should the engineer modify to change the port number to the desired value?

A. /etc/host.conf
B. /etc/hostname
C. /etc/services
D. /etc/ssh/sshd_config

Answer: D

NEW QUESTION 5

A systems administrator created a web server for the company and is required to add a tag for the API so end users can connect. Which of the following would the administrator do to complete this requirement?

A. hostnamectl status --no-ask-password
B. hostnamectl set-hostname "$(perl -le "print" "A" x 86)"
C. hostnamectl set-hostname Comptia-WebNode -H root@192.168.2.14
D. hostnamectl set-hostname Comptia-WebNode --transient

Answer: C

NEW QUESTION 6

A Linux administrator reviews a set of log output files and needs to identify files that contain any occurrence of the word denied. All log files containing entries in uppercase or lowercase letters should be included in the list. Which of the following commands should the administrator use to accomplish this task?

A. find . -type f -print | xrags grep -ln denied
B. find . -type f -print | xrags grep -nv denied
C. find . -type f -print | xrags grep -wL denied
D. find . -type f -print | xrags grep -li denied

Answer: A

NEW QUESTION 7

Which of the following technologies can be used as a central repository of Linux users and groups?

A. LDAP
B. MFA
C. SSO
D. PAM

Answer: A

NEW QUESTION 8

A Linux administrator needs to create an image named sda.img from the sda disk and store it in the /tmp directory. Which of the following commands should be used to accomplish this task?

A. dd of=/dev/sda if=/tmp/sda.img
B. dd if=/dev/sda of=/tmp/sda.img
C. dd --if=/dev/sda --of=/tmp/sda.img
D. dd --of=/dev/sda --if=/tmp/sda.img

Answer: B

NEW QUESTION 9

Based on an organization's new cybersecurity policies, an administrator has been instructed to ensure that, by default, all new users and groups that are created fall within the specified values below.

```
# Min/max values for automatic uid selection in useradd
#
UID_MIN 1000
UID_MAX 60000
# Min/max values for automatic gid selection in groupadd
#
GID_MIN 1000
GID_MAX 60000
```

To which of the following configuration files will the required changes need to be made?

A. /etc/login.defs
B. /etc/security/limits.conf
C. /etc/default/useradd
D. /etc/profile

Answer: A

NEW QUESTION 10

Which of the following tools is commonly used for creating CI/CD pipelines?

A. Chef
B. Puppet
C. Jenkins
D. Ansible

Answer: C

NEW QUESTION 10
A systems administrator is troubleshooting a connectivity issue pertaining to access to a system named db.example.com. The system IP address should be 192.168.20.88. The administrator issues the dig command and receives the following output:

```
;; ANSWER SECTION:
db.example.com.      15 IN A 192.168.20.89
```

The administrator runs grep db.example.com /etc/hosts and receives the following output:

```
192.168.20.89 db.example.com
```

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

A. Modify the /etc/hosts file and change the db.example.com entry to 192.168.20.89.
B. Modify the /etc/network file and change the db.example.com entry to 192.168.20.88.
C. Modify the /etc/network file and change the db.example.com entry to 192.168.20.89.
D. Modify the /etc/hosts file and change the db.example.com entry to 192.168.20.88.

Answer: A

NEW QUESTION 11
A systems administrator is compiling a report containing information about processes that are listening on the network ports of a Linux server. Which of the following commands will allow the administrator to obtain the needed information?

A. ss -pint
B. tcpdump -nL
C. netstat -pn
D. lsof -lt

Answer: C

NEW QUESTION 16
A systems administrator needs to reconfigure a Linux server to allow persistent IPv4 packet forwarding. Which of the following commands is the correct way to accomplish this task?

A. echo 1 > /proc/sys/net/ipv4/ipv_forward
B. sysctl -w net.ipv4.ip_forward=1
C. firewall-cmd --enable ipv4_forwarding
D. systemctl start ipv4_forwarding

Answer: B

NEW QUESTION 18
An administrator needs to make some changes in the IaC declaration templates. Which of the following commands would maintain version control?

A. git clone https://github.com/comptia/linux+-.git git push origin
B. git clone https://qithub.com/comptia/linux+-.git git fetch New-Branch
C. git clone https://github.com/comptia/linux+-.git git status
D. git clone https://github.com/comptia/linuxt+-.gitgit checkout -b <new-branch>

Answer: D

NEW QUESTION 23
A systems administrator has been unable to terminate a process. Which of the following should the administrator use to forcibly stop the process?

A. kill -1
B. kill -3
C. kill -15
D. kill -HUP
E. kill -TERM

Answer: B

NEW QUESTION 27
A cloud engineer needs to launch a container named web-01 in background mode. Which of the following commands will accomplish this task"

A. docker builder -f —name web-01 httpd
B. docker load --name web-01 httpd
C. docker ps -a --name web-01 httpd
D. docker run -d --name web-01 httpd

Answer: D

NEW QUESTION 30
A systems engineer is adding a new 1GB XFS filesystem that should be temporarily mounted under /ops/app. Which of the following is the correct list of commands to achieve this goal?

A. C:\Users\Admin\Desktop\Data\Odt data\Untitled.jpg

```
pvcreate -L1G /dev/app
mkfs.xfs /dev/app
mount /dev/app /opt/app
```

B. C:\Users\Admin\Desktop\Data\Odt data\Untitled.jpg

```
parted /dev/sdb --script mkpart primary xfs 1GB
mkfs.xfs /dev/sdb
mount /dev/sdb /opt/app
```

C. C:\Users\Admin\Desktop\Data\Odt data\Untitled.jpg

```
lvs --create 1G --name app
mkfs.xfs /dev/app
mount /dev/app /opt/app
```

D. C:\Users\Admin\Desktop\Data\Odt data\Untitled.jpg

```
lvcreate -L 1G -n app app_vg
mkfs.xfs /dev/app_vg/app
mount /dev/app_vg/app /opt/app
```

Answer: D

NEW QUESTION 34
A Linux administrator is troubleshooting an issue in which an application service failed to start on a Linux server. The administrator runs a few commands and gets the following outputs:

```
Output 1:

Dec 23 23:14:15 root systemd[1] logsearch.service: Failed to start Logsearch.

Output 2:

logsearch.service - Log Search
    Loaded: loaded (/etc/systemd/system/logsearch.service; enabled; vendor preset:enabled)
    Active: failed (Result: timeout)
   Process: 3267 ExecStart=/usr/share/logsearch/bin/logger ...
  Main PID: 3267 (code=killed, signal=KILL)
```

Based on the above outputs, which of the following is the MOST likely action the administrator should take to resolve this issue?

A. Enable the logsearch.service and restart the service.
B. Increase the TimeoutStartUSec configuration for the logsearch.sevice.
C. Update the OnCalendar configuration to schedule the start of the logsearch.service.
D. Update the KillSignal configuration for the logsearch.service to use TERM.

Answer: B

NEW QUESTION 38
A DevOps engineer needs to allow incoming traffic to ports in the range of 4000 to 5000 on a Linux server. Which of the following commands will enforce this rule?

A. iptables -f filter -I INPUT -p tcp --dport 4000:5000 -A ACCEPT
B. iptables -t filter -A INPUT -p tcp --dport 4000:5000 -j ACCEPT
C. iptables filter -A INPUT -p tcp --dport 4000:5000 -D ACCEPT
D. iptables filter -S INPUT -p tcp --dport 4000:5000 -A ACCEPT

Answer: B

NEW QUESTION 42
A Linux administrator is tasked with creating resources using containerization. When deciding how to create this type of deployment, the administrator identifies some key features, including portability, high availability, and scalability in production. Which of the following should the Linux administrator choose for the new design?

A. Docker
B. On-premises systems
C. Cloud-based systems
D. Kubernetes

Answer: D

NEW QUESTION 45
A systems administrator is notified that the mysqld process stopped unexpectedly. The systems administrator issues the following command:
sudo grep –i -r 'out of memory' /var/log
The output of the command shows the following:
kernel: Out of memory: Kill process 9112 (mysqld) score 511 or sacrifice child.
Which of the following commands should the systems administrator execute NEXT to troubleshoot this issue? (Select two).

A. free -h
B. nc -v 127.0.0.1 3306
C. renice -15 $(pidof mysql)
D. lsblk
E. killall -15
F. vmstat -a 1 4

Answer: AC

NEW QUESTION 49
A systems administrator is tasked with setting up key-based SSH authentication. In which of the following locations should the administrator place the public keys for the server?

A. ~/.sshd/authkeys
B. ~/.ssh/keys
C. ~/.ssh/authorized_keys
D. ~/.ssh/keyauth

Answer: C

NEW QUESTION 53
A development team asks an engineer to guarantee the persistency of journal log files across system reboots. Which of the following commands would accomplish this task?

A. grep -i auto /etc/systemd/journald.conf && systemctl restart systemd-journald.service
B. cat /etc/systemd/journald.conf | awk '(print $1,$3)'
C. sed -i 's/auto/persistent/g' /etc/systemd/journald.conf && sed -i 'persistent/s/ˆ#//q'/etc/systemd/journald.conf
D. journalctl --list-boots && systemctl restart systemd-journald.service

Answer: A

NEW QUESTION 54
A systems administrator is tasked with mounting a USB drive on a system. The USB drive has a single partition, and it has been mapped by the system to the device /dev/sdb. Which of the following commands will mount the USB to /media/usb?

A. mount /dev/sdb1 /media/usb
B. mount /dev/sdb0 /media/usb
C. mount /dev/sdb /media/usb
D. mount -t usb /dev/sdb1 /media/usb

Answer: A

NEW QUESTION 58
A junior systems administrator has just generated public and private authentication keys for passwordless login. Which of the following files will be moved to the remote servers?

A. id_dsa.pem
B. id_rsa
C. id_ecdsa
D. id_rsa.pub

Answer: D

NEW QUESTION 61
After listing the properties of a system account, a systems administrator wants to remove the expiration date of a user account. Which of the following commands will accomplish this task?

A. chgrp system accountname
B. passwd –s accountname
C. chmod -G system account name
D. chage -E -1 accountname

Answer: D

NEW QUESTION 63
A systems administrator needs to clone the partition /dev/sdc1 to /dev/sdd1. Which of the following commands will accomplish this task?

A. tar -cvzf /dev/sdd1 /dev/sdc1
B. rsync /dev/sdc1 /dev/sdd1
C. dd if=/dev/sdc1 of=/dev/sdd1
D. scp /dev/sdc1 /dev/sdd1

Answer: C

NEW QUESTION 64

Developers have requested implementation of a persistent, static route on the application server. Packets sent over the interface eth0 to 10.0.213.5/32 should be routed via 10.0.5.1. Which of the following commands should the administrator run to achieve this goal?

A. route -i etho -p add 10.0.213.5 10.0.5.1
B. route modify eth0 +ipv4.routes "10.0.213.5/32 10.0.5.1"
C. echo "10.0.213.5 10.0.5.1 eth0" > /proc/net/route
D. ip route add 10.0.213.5/32 via 10.0.5.1 dev eth0

Answer: D

NEW QUESTION 68

A junior Linux administrator is tasked with installing an application. The installation guide states the application should only be installed in a run level 5 environment.

```
$ systemctl get-default
getty.target
```

Which of the following commands would ensure the server is set to runlevel 5?

A. systemctl isolate multi-user.target
B. systemctl isolate graphical.target
C. systemctl isolate network.target
D. systemctl isolate basic.target

Answer: B

NEW QUESTION 69

A systems administrator is tasked with creating an Ansible playbook to automate the installation of patches on several Linux systems. In which of the following languages should the playbook be written?

A. SQL
B. YAML
C. HTML
D. JSON

Answer: B

NEW QUESTION 74

A Linux administrator recently downloaded a software package that is currently in a compressed file. Which of the following commands will extract the files?

A. unzip -v
B. bzip2 -z
C. gzip
D. funzip

Answer: C

NEW QUESTION 77

A cloud engineer is installing packages during VM provisioning. Which of the following should the engineer use to accomplish this task?

A. Cloud-init
B. Bash
C. Docker
D. Sidecar

Answer: A

NEW QUESTION 81

Which of the following commands is used to configure the default permissions for new files?

A. setenforce
B. sudo
C. umask
D. chmod

Answer: C

NEW QUESTION 84

A Linux administrator has set up a new DNS forwarder and is configuring all internal servers to use the new forwarder to look up external DNS requests. The administrator needs to modify the firewall on the server for the DNS forwarder to allow the internal servers to communicate to it and make the changes persistent between server reboots. Which of the following commands should be run on the DNS forwarder server to accomplish this task?

A. ufw allow out dns
B. systemctl reload firewalld
C. iptables -A OUTPUT -p udp -ra udp -dport 53 -j ACCEPT
D. flrewall-cmd --zone-public --add-port-53/udp --permanent

Answer: D

NEW QUESTION 85

When trying to log in remotely to a server, a user receives the following message:

```
Password:
Last failed login: Wed Sep 15 17:23:45 CEST 2021 from 10.0.4.3 on ssh:notty
There were 3 failed login attempts since the last successful login.
Connection to localhost closed.
```

The server administrator is investigating the issue on the server and receives the following outputs:

```
Output 1:

user:x:1001:7374::/home/user:/bin/false

Output 2:

drwx------. 2 user 62 Sep 15 17:17 /home/user

Output 3:

Sep 12 14:14:05 server sshd[22958] Failed password for user from 10.0.2.8
Sep 15 17:24:03 server sshd[9460]: Accepted keyboard-interactive/pam for user from 10.0.6.5 port 50928 ssh2
Sep 15 17:24:03 server sshd[9460]: pam_unix(sshd:session): session opened for user testuser
Sep 15 17:24:03 server sshd[9460]: pam_unix(sshd:session): session closed for user testuser
```

Which of the following is causing the issue?

A. The wrong permissions are on the user's home directory.
B. The account was locked out due to three failed logins.
C. The user entered the wrong password.
D. The user has the wrong shell assigned to the account.

Answer: D

NEW QUESTION 88

A systems administrator received a notification that a system is performing slowly. When running the top command, the systems administrator can see the following values:

```
%Cpu(s): 2.7 us, 1.9 sy, 0.0 ni, 0.4 id, 95 wa, 0.0 hi, 0.0 si 0.0 st
```

Which of the following commands will the administrator most likely run NEXT?

A. vmstat
B. strace
C. htop
D. lsof

Answer: A

NEW QUESTION 89

A Linux systems administrator needs to copy files and directories from Server A to Server B. Which of the following commands can be used for this purpose? (Select TWO)

A. rsyslog
B. cp
C. rsync
D. reposync
E. scp
F. ssh

Answer: CE

NEW QUESTION 90

A Linux administrator needs to resolve a service that has failed to start. The administrator runs the following command:

```
ls -1 startup file
```

The following output is returned

```
----------. root root 81k Sep 13 19:01 startupfile
```

Which of the following is MOST likely the issue?

A. The service does not have permissions to read write the startupfile.
B. The service startupfile size cannot be 81k.
C. The service startupfile cannot be owned by root.
D. The service startupfile should not be owned by the root group.

Answer: A

NEW QUESTION 94
A Linux engineer set up two local DNS servers (10.10.10.10 and 10.10.10.20) and was testing email connectivity to the local mail server using the mail command on a local machine when the following error appeared:

```
Send-mail: Cannot open mail:25
```

The local machine DNS settings are:

```
$ cat /etc/resolv.conf
nameserver 10.10.10.10 #web records
nameserver 10.10.10.20 #email records

Mail server: mail.example.com
```

Which of the following commands could the engineer use to query the DNS server to get mail server information?

A. dig @example.com 10.10.10.20 a
B. dig @10.10.10.20 example.com mx
C. dig @example.com 10.10.10.20 ptr
D. dig @10.10.10.20 example.com ns

Answer: B

NEW QUESTION 97
A Linux administrator needs to determine whether a hostname is in the DNS. Which of the following would supply the information that is needed?

A. nslookup
B. rsyn
C. netstat
D. host

Answer: A

NEW QUESTION 101
A Linux administrator created a new file system. Which of the following files must be updated to ensure the filesystem mounts at boot time?

A. /etc/sysctl
B. /etc/filesystems
C. /etc/fstab
D. /etc/nfsmount.conf

Answer: C

NEW QUESTION 106
A Linux administrator would like to use systemd to schedule a job to run every two hours. The administrator creates timer and service definitions and restarts the server to load these new configurations. After the restart, the administrator checks the log file and notices that the job is only running daily. Which of the following is MOST likely causing the issue?

A. The checkdiskspace.service is not running.
B. The checkdiskspace.service needs to be enabled.
C. The OnCalendar schedule is incorrect in the timer definition.
D. The system-daemon services need to be reloaded.

Answer: D

NEW QUESTION 111
What is the main objective when using Application Control?

A. To filter out specific content.
B. To assist the firewall blade with handling traffic.
C. To see what users are doing.
D. Ensure security and privacy of information.

Answer: C

NEW QUESTION 116
A Linux administrator modified the SSH configuration file. Which of the following commands should be used to apply the configuration changes?

A. systemctl stop sshd
B. systemctl mask sshd
C. systemctl reload sshd
D. systemctl start sshd

Answer: C

NEW QUESTION 117
A Linux systems administrator receives reports from various users that an application hosted on a server has stopped responding at similar times for several days in a row. The administrator logs in to the system and obtains the following output:
Output 1:

```
[Tue Aug 31 16:36:42 2021] OOM: Kill process 43805 (java) score 249 or sacrifice child
[Tue Aug 31 16:36:42 2021] killed process 43805 (java) total-vm: 4446352kB, anon-rss: 4053140kB, file-rss: 68kB
```

Output 2:

```
Linux 3.10.0-328.13.1.x86_64 #1 (hostname) 31/08/2021 _x86_64_  (8 CPU)
16:00:01 PM     CPU     %user   %nice   %system   %iowait   %steal     %idle
16:10:01 PM     all     17.58    0.00     9.36      0.00      0.00      73.06
16:20:01 PM     all     22.34    0.00    11.75      0.00      0.00      65.91
16:30:01 PM     all     25.49    0.00    11.69      0.00       0        62.82
```

Output 3:

```
$ free -m
          total     used     free   shared   buff/cache   available
Mem:      16704    15026      174       92          619         793
Swap:         0        0        0
```

Which of the following should the administrator do to provide the BEST solution for the reported issue?

A. Configure memory allocation policies during business hours and prevent the Java process from going into a zombie state while the server is idle.
B. Configure a different nice value for the Java process to allow for more users and prevent the Java process from restarting during business hours.
C. Configure more CPU cores to allow for the server to allocate more processing and prevent the Java process from consuming all of the available resources.
D. Configure the swap space to allow for spikes in usage during peak hours and prevent the Java process from stopping due to a lack of memory.

Answer: A

NEW QUESTION 119
Which of the following is a function of a bootloader?

A. It initializes all the devices that are required to load the OS.
B. It mounts the root filesystem that is required to load the OS.
C. It helps to load the different kernels to initiate the OS startup process.
D. It triggers the start of all the system services.

Answer: C

NEW QUESTION 123
A Linux systems administrator is configuring a new filesystem that needs the capability to be mounted persistently across reboots. Which of the following commands will accomplish this task? (Choose two.)

A. df -h /data
B. mkfs.ext4 /dev/sdc1
C. fsck /dev/sdc1
D. fdisk -l /dev/sdc1
E. echo "/data /dev/sdc1 ext4 defaults 0 0" >> /etc/fstab
F. echo "/dev/sdc1 /data ext4 defaults 0 0" >> /etc/fstab

Answer: BF

Explanation:
"modify the /etc/fstab text file to automatically mount the new partition by opening it in an editor and adding the following line:
/dev/ xxx 1 /data ext4 defaults 1 2

where xxx is the device name of the storage device" https://learning.oreilly.com/library/view/mastering-linux-system/9781119794455/b01.xhtml

NEW QUESTION 126
A Linux administrator rebooted a server. Users then reported some of their files were missing. After doing some troubleshooting, the administrator found one of the filesystems was missing. The filesystem was not listed in /etc/f stab and might have been mounted manually by someone prior to reboot. Which of the following would prevent this issue from reoccurring in the future?

A. Sync the mount units.
B. Mount the filesystem manually.
C. Create a mount unit and enable it to be started at boot.
D. Remount all the missing filesystems

Answer: C

NEW QUESTION 128
A systems administrator wants to be sure the sudo rules just added to /etc/sudoers are valid. Which of the following commands can be used for this task?

A. visudo -c
B. test -f /etc/sudoers
C. sudo vi check
D. cat /etc/sudoers | tee test

Answer: A

NEW QUESTION 133
A user generated a pair of private-public keys on a workstation. Which of the following commands will allow the user to upload the public key to a remote server and enable passwordless login?

A. scp ~/.ssh/id_rsa user@server:~/
B. rsync ~ /.ssh/ user@server:~/
C. ssh-add user server
D. ssh-copy-id user@server

Answer: D

NEW QUESTION 135
User1 is a member of the accounting group. Members of this group need to be able to execute but not make changes to a script maintained by User2. The script should not be accessible to other users or groups. Which of the following will give proper access to the script?

A. chown user2:accounting script.sh chmod 750 script.sh
B. chown user1:accounting script.sh chmod 777 script.sh
C. chown accounting:user1 script.sh chmod 057 script.sh
D. chown user2:accounting script.shchmod u+x script.sh

Answer: C

NEW QUESTION 138
A Linux administrator is providing a new Nginx image from the registry to local cache. Which of the following commands would allow this to happen?

A. docker pull nginx
B. docker attach nginx
C. docker commit nginx
D. docker import nginx

Answer: A

NEW QUESTION 143
A cloud engineer needs to remove all dangling images and delete all the images that do not have an associated container. Which of the following commands will help to accomplish this task?

A. docker images prune -a
B. docker push images -a
C. docker rmi -a images
D. docker images rmi --all

Answer: A

NEW QUESTION 144
A systems administrator configured firewall rules using firewalld. However, after the system is rebooted, the firewall rules are not present:

```
Chain INPUT (policy ACCEPT)
target        prot opt source                      destination
Chain FORWARD (policy ACCEPT)
target        prot opt source                      destination
Chain OUTPUT (policy ACCEPT)
target        prot opt source                      destination
```

The systems administrator makes additional checks:

```
- dynamic firewall daemon
  Loaded: loaded (/usr/lib/systemd/system/firewalld.service: disabled; vendor preset: enabled)
  Active: inactive (dead)
  Docs: man: firewalld (1)

firewalld is not running
```

Which of the following is the reason the firewall rules are not active?

A. iptables is conflicting with firewalld.
B. The wrong system target is activated.
C. FIREWALL_ARGS has no value assigned.
D. The firewalld service is not enabled.

Answer: D

NEW QUESTION 146
Which of the following commands will display the operating system?

A. uname -n
B. uname -s
C. uname -o
D. uname -m

Answer: C

NEW QUESTION 150
A Linux administrator is installing a web server and needs to check whether web traffic has already been allowed through the firewall. Which of the following commands should the administrator use to accomplish this task?

A. firewalld query-service-http
B. firewall-cmd --check-service http
C. firewall-cmd --query-service http
D. firewalld --check-service http

Answer: C

NEW QUESTION 151
A systems administrator made some unapproved changes prior to leaving the company. The newly hired administrator has been tasked with revealing the system to a compliant state. Which of the following commands will list and remove the correspondent packages?

A. dnf list and dnf remove last
B. dnf remove and dnf check
C. dnf info and dnf upgrade
D. dnf history and dnf history undo last

Answer: D

NEW QUESTION 154
A Linux administrator is trying to remove the ACL from the file /home/user/data. txt but receives the following error message:

```
setfacl: data.txt: operation not permitted
```

Given the following analysis:

```
/dev/mapper/linux-home on /home type xfs (rw,relatime,seclabel,attr2,inode64,usrquota)

-rw-rw-r--+ 1 user staff 2354 Sep 15 16:33 data.txt
-rw-rw-r--+ user staff unconfined_u:object_r:user_home_t:s0 data.txt

# file: data.txt
# owner: user
# group: staff
user::rw-
user:accounting:rw-
group::r-
mask::rw-
other::r-

Attributes:
-----a------------
```

Which of the following is causing the error message?

A. The administrator is not using a highly privileged account.
B. The filesystem is mounted with the wrong options.
C. SELinux file context is denying the ACL changes.
D. File attributes are preventing file modification.

Answer: D

NEW QUESTION 159
A Linux administrator wants to set the SUID of a file named dev_team.text with 744 access rights. Which of the following commands will achieve this goal?

A. chmod 4744 dev_team.txt
B. chmod 744 --setuid dev_team.txt
C. chmod -c 744 dev_team.txt
D. chmod -v 4744 --suid dev_team.txt
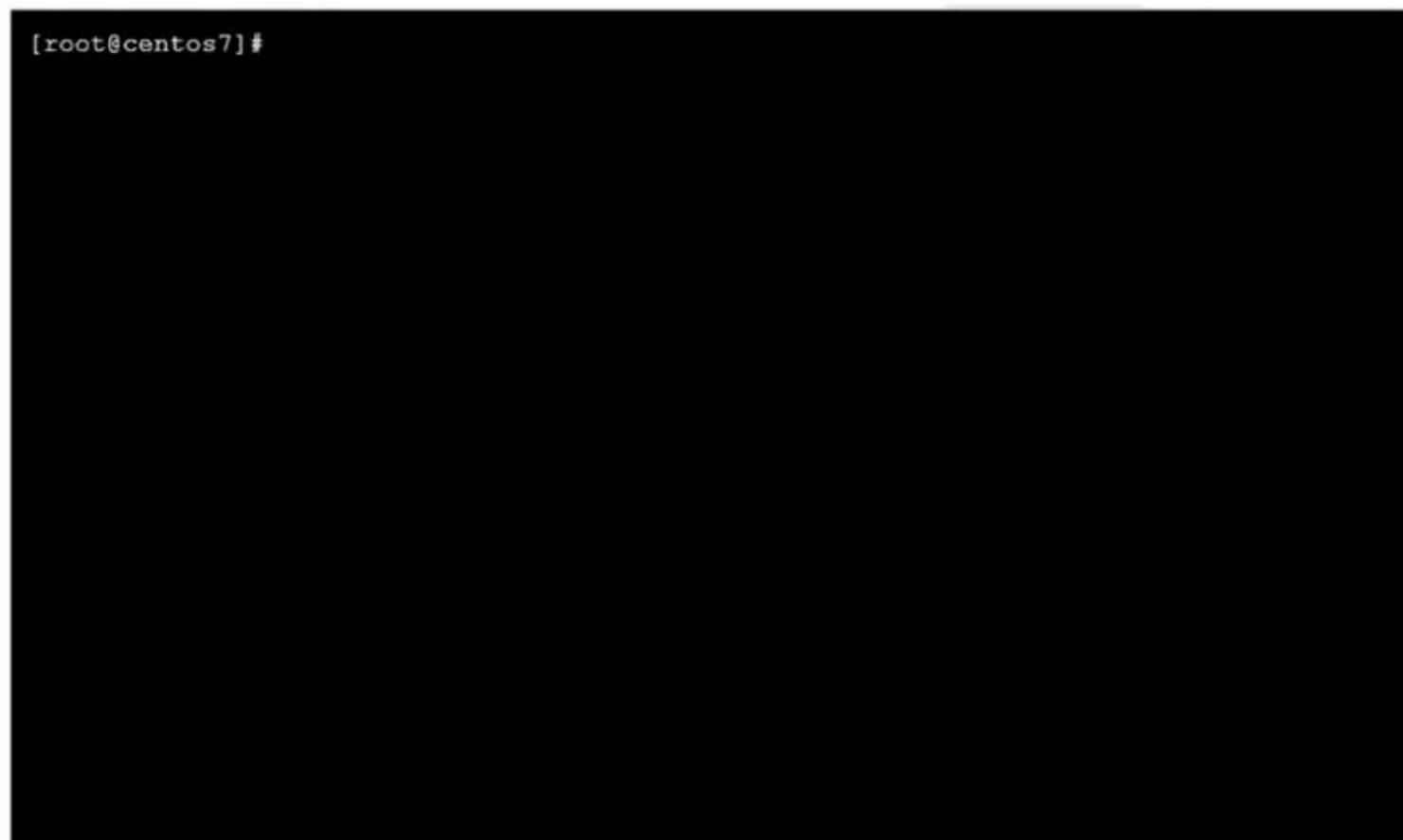
Answer: A

NEW QUESTION 163
Junior system administrator had trouble installing and running an Apache web server on a Linux server. You have been tasked with installing the Apache web server on the Linux server and resolving the issue that prevented the junior administrator from running Apache.
INSTRUCTIONS
Install Apache and start the service. Verify that the Apache service is running with the defaults. Typing "help" in the terminal will show a list of relevant event commands.
If at any time you would like to bring back the initial state of the simulation, please click the Reset All button.

CentOS Command Prompt

```
[root@centos7]#
```

A. Mastered
B. Not Mastered

Answer: A

Explanation:
yum install httpd
systemctl --now enable httpd systemctl status httpd
netstat -tunlp | grep 80 pkill <processname> systemctl restart httpd systemctl status httpd

NEW QUESTION 164
Users have reported that the interactive sessions were lost on a Linux server. A Linux administrator verifies the server was switched to rescue.target mode for maintenance. Which of the following commands will restore the server to its usual target?

A. telinit 0
B. systemctl reboot
C. systemctl get-default
D. systemctl emergency

Answer: B

NEW QUESTION 169
In which of the following filesystems are system logs commonly stored?

A. /var
B. /tmp
C. /etc
D. /opt

Answer: A

NEW QUESTION 174
A Linux engineer is setting the sticky bit on a directory called devops with 755 file permission. Which of the following commands will accomplish this task?

A. chown -s 755 devops
B. chown 1755 devops
C. chmod -s 755 devops
D. chmod 1755 devops

Answer: D

NEW QUESTION 176
A new file was added to a main Git repository. An administrator wants to synchronize a local copy with the contents of the main repository. Which of the following commands should the administrator use for this task?

A. git reflog
B. git pull
C. git status
D. git push

Answer: B

NEW QUESTION 180
A Linux administrator was notified that a virtual server has an I/O bottleneck. The Linux administrator analyzes the following output:

```
root@linux:~# uptime
18:43:47 up 1 day, 19:58, 1 user, load average: 9.90, 5.83, 2.49
root@linux:~# vmstat 10 10
procs -----------memory---------- --swap----- -----io---- -system- -----------cpu-------

 r  b  swpd   free    buff   cache  si    so bi     bo     in    cs us sy id wa st
13  0  5520  141228  98932 2325312  0     2 10     28     192   167  1  0 99  0  0
10  0  5608  131280  98932 2325324  0 26211  0  26211     342   393 91  9  0  0  0
10  0  5528   1096   98932 2325324  0  5242  0   5242     333   402 96  4  0  0  0

root@linux:~# free -m
        total  used   free shared buff/cache  available
Mem:     3933  1454    110     33       2368       2202
Swap:    1497     5   1491
```

Given there is a single CPU in the sever, which of the following is causing the slowness?

A. The system is running out of swap space.
B. The CPU is overloaded.
C. The memory is exhausted.
D. The processes are paging.

Answer: B

NEW QUESTION 184
A Linux administrator found many containers in an exited state. Which of the following commands will allow the administrator to clean up the containers in an exited state?

A. docker rm --all
B. docker rm $(docker ps -aq)
C. docker images prune *
D. docker rm --state exited

Answer: D

NEW QUESTION 185
An administrator is trying to diagnose a performance issue and is reviewing the following output:

```
avg-cpu:  %user   %nice  %system  %iowait  %steal   %idle
           2.00    0.00    3.00    32.00    0.00    63.00


Device                tps    kB_read/s   kB_wrtn/s     kB_read     kB_wrtn
sdb               345.00        0.02        0.04   4739073123    23849523
sdb1              345.00    32102.03    12203.01   4739073123    23849523
```

System Properties: CPU: 4 vCPU
Memory: 40GB
Disk maximum IOPS: 690
Disk maximum throughput: 44Mbps | 44000Kbps
Based on the above output, which of the following BEST describes the root cause?

A. The system has reached its maximum IOPS, causing the system to be slow.
B. The system has reached its maximum permitted throughput, therefore iowait is increasing.
C. The system is mostly idle, therefore the iowait is high.
D. The system has a partitioned disk, which causes the IOPS to be doubled.

Answer: B

NEW QUESTION 190
An administrator accidentally deleted the /boot/vmlinuz file and must resolve the issue before the server is rebooted. Which of the following commands should the administrator use to identify the correct
version of this file?

A. rpm -qa | grep kernel; uname -a
B. yum -y update; shutdown -r now
C. cat /etc/centos-release; rpm -Uvh --nodeps
D. telinit 1; restorecon -Rv /boot

Answer: A

NEW QUESTION 193
A systems administrator made some changes in the ~/.bashrc file and added an alias command. When the administrator tried to use the alias command, it did not
work. Which of the following should be executed FIRST?

A. source ~/.bashrc
B. read ~/.bashrc
C. touch ~/.bashrc
D. echo ~/.bashrc

Answer: A

NEW QUESTION 194
Using AD Query, the security gateway connections to the Active Directory Domain Controllers using what protocol?

A. Windows Management Instrumentation (WMI)
B. Hypertext Transfer Protocol Secure (HTTPS)
C. Lightweight Directory Access Protocol (LDAP)
D. Remote Desktop Protocol (RDP)

Answer: A

NEW QUESTION 196
Users report that connections to a MariaDB service are being closed unexpectedly. A systems administrator troubleshoots the issue and finds the following

message in /var/log/messages:

```
dbserver kernel: out of Memory: Killed process 1234 (mysqld).
```

Which of the following is causing the connection issue?

A. The process mysqld is using too many semaphores.
B. The server is running out of file descriptors.
C. Something is starving the server resources.
D. The amount of RAM allocated to the server is too high.

Answer: D

NEW QUESTION 200
A systems administrator created a new Docker image called test. After building the image, the administrator forgot to version the release. Which of the following will allow the administrator to assign the v1 version to the image?

A. docker image save test test:v1
B. docker image build test:vl
C. docker image tag test test:vl
D. docker image version test:v1

Answer: C

NEW QUESTION 205
A systems administrator installed a new software program on a Linux server. When the systems administrator tries to run the program, the following message appears on the screen.

```
Hardware virtualization support is not available on this system.
Either is not present or disabled in the system's BIOS
```

Which of the following commands will allow the systems administrator to check whether the system supports virtualization?

A. dmidecode -s system-version
B. lscpu
C. sysctl -a
D. cat /sys/device/system/cpu/possible

Answer: B

NEW QUESTION 208
Employees in the finance department are having trouble accessing the file /opt/work/file. All IT employees can read and write the file. Systems administrator reviews the following output:

```
admin@server:/opt/work$ ls -al file
-rw-rw----+ 1 root it 4 Sep 5 17:29 file
```

Which of the following commands would permanently fix the access issue while limiting access to IT and finance department employees?

A. chattr +i file
B. chown it:finance file
C. chmod 666 file
D. setfacl -m g:finance:rw file

Answer: D

NEW QUESTION 211
A systems administrator is checking the system logs. The administrator wants to look at the last 20 lines of a log. Which of the following will execute the command?

A. tail -v 20
B. tail -n 20
C. tail -c 20
D. tail -l 20

Answer: B

NEW QUESTION 216
A Linux administrator booted up the server and was presented with a non-GUI terminal. The administrator ran the command systemctl isolate graphical.target and rebooted the system by running systemctl reboot, which fixed the issue. However, the next day the administrator was presented again with a non-GUI terminal. Which of the following is the issue?

A. The administrator did not reboot the server properly.
B. The administrator did not set the default target to basic.target.
C. The administrator did not set the default target to graphical.target.
D. The administrator did not shut down the server properly.

Answer: C

NEW QUESTION 220
To harden one of the servers, an administrator needs to remove the possibility of remote administrative login via the SSH service. Which of the following should the administrator do?

A. Add the line DenyUsers root to the /etc/hosts.deny file.
B. Set PermitRootLogin to no in the /etc/ssh/sshd_config file.
C. Add the line account required pam_nologi
D. so to the /etc/pam.d/sshd file.
E. Set PubKeyAuthentication to no in the /etc/ssh/ssh_config file.

Answer: B

NEW QUESTION 222
Which of the following enables administrators to configure and enforce MFA on a Linux system?

A. Kerberos
B. SELinux
C. PAM
D. PKI

Answer: A

NEW QUESTION 226
Which of the following technologies provides load balancing, encryption, and observability in containerized environments?

A. Virtual private network
B. Sidecar pod
C. Overlay network
D. Service mesh

Answer: D

Explanation:
"A service mesh controls the delivery of service requests in an application. Common features provided by a service mesh include service discovery, load balancing, encryption and failure recovery."
https://www.techtarget.com/searchitoperations/definition/service-mesh

NEW QUESTION 231
A systems administrator wants to test the route between IP address 10.0.2.15 and IP address 192.168.1.40. Which of the following commands will accomplish this task?

A. route -e get to 192.168.1.40 from 10.0.2.15
B. ip route get 192.163.1.40 from 10.0.2.15
C. ip route 192.169.1.40 to 10.0.2.15
D. route -n 192.168.1.40 from 10.0.2.15

Answer: B

NEW QUESTION 236
A Linux administrator is troubleshooting a memory-related issue. Based on the output of the commands:

```
$ vmstat -s --unit M

  968 M total memory
  331 M used memory
  482 M active memory
  279 M inactive memory
   99 M free memory


$ free -h
            total     used     free     shared   buff/cache   available
Mem:        968M      331M     95M      13M      540M         458M
Swap:       0         0        0


$ ps -aux | grep script.sh
USER   PID   %CPU  %MEM   VSZ      RSS     TTY STAT  START   TIME  COMMAND
user   8321  2.8   40.5   3224846  371687  7   SN    16:49   2:09  /home/user/script.sh
```

Which of the following commands would address the issue?

A. top -p 8321
B. kill -9 8321
C. renice -10 8321
D. free 8321

Answer: C

NEW QUESTION 239
A Linux administrator has logged in to a server for the first time and needs to know which services are allowed through the firewall. Which of the following options will return the results for which the administrator is looking?

A. firewall-cmd —get-services
B. firewall-cmd —check-config
C. firewall-cmd —list-services
D. systemctl status firewalld

Answer: C

NEW QUESTION 240
Joe, a user, is unable to log in to the Linux system. Given the following output:

```
# grep joe /etc/passwd /etc/shadow
/etc/passwd:joe:x:1001:1001::/home/joe:/bin/nologin
/etc/shadow:joe:$6$3uOw6qWx9876jGhgKJsdfH987634534voj.:18883:0:99999:7:::
```

Which of the following commands would resolve the issue?

A. usermod -s /bin/bash joe
B. pam_tally2 -u joe -r
C. passwd -u joe
D. chage -E 90 joe

Answer: A

NEW QUESTION 241
A systems administrator is investigating an issue in which one of the servers is not booting up properly. The journalctl entries show the following:

```
Sep 16 20:30:43 server kernel: acpi PNP0A03:00: _OSC failed (AE_NOT_FOUND);
-- Subject: Unit dev-mapper-centos\x2dapp.device has failed
Sep 16 20:32:15 server systemd[1]: Dependency failed for /opt/app
-- Subject: Unit opt-app.mount has failed
-- Unit opt-app.mount has failed
Sep 16 20:32:15 server systemd[1]: Dependency failed for Local File Systems.
-- Subject: Unit local-fs.target has failed
-- Unit local-fs.target has failed.
Sep 16 20:32:15 server systemd[1]: Dependency failed for Relabel all filesystem, if necessary.
-- Subject: Unit rhel-autorelabel.service has failed
-- Unit rhel-autorelabel.service has failed.
```

Which of the following will allow the administrator to boot the Linux system to normal mode quickly?

A. Comment out the /opt/app filesystem in /etc/fstab and reboot.
B. Reformat the /opt/app filesystem and reboot.
C. Perform filesystem checks on local filesystems and reboot.
D. Trigger a filesystem relabel and reboot.

Answer: A

NEW QUESTION 244
A newly created container has been unable to start properly, and a Linux administrator is analyzing the cause of the failure. Which of the following will allow the administrator to determine the FIRST command that is executed inside the container right after it starts?

A. docker export <container_id>
B. docker info <container_id>
C. docker start <container_id>
D. docker inspect <container_id>

Answer: D

NEW QUESTION 245
A systems administrator requires that all files that are created by the user named web have read-only permissions by the owner. Which of the following commands will satisfy this requirement?

A. chown web:web /home/web
B. chmod -R 400 /home/web
C. echo "umask 377" >> /home/web/.bashrc
D. setfacl read /home/web

Answer: B

NEW QUESTION 249
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