XK0-004

PrepAway

XK0-004

CompTIA Linux+ Certification Exam

Version 1.0

QUESTION 1
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

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Reference: https://www.sfu.ca/computing/about/support/tips/remote-to-linux-with-gui.html

QUESTION 2
A technical support engineer receives a ticket from a user who is trying to create a 1KB file in the `/tmp` directory and is getting the following error `No space left on device`. The support engineer checks the `/tmp` directory, and it has 20GB of free space.

Which of the following BEST describes a possible cause for this error?

A. The `/tmp` directory is not mounted.
B. The filesystem is formatted with a 4MB block size.
C. the filesystem ran out of inodes.
D. The `/tmp` directory has been set with an immutable attribute.

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Reference: https://www.maketecheasier.com/fix-linux-no-space-left-on-device-error/

QUESTION 3
Which of the following is the BEST reason for not storing database files in the `/var` directory?

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 4
SIMULATION

A 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 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]#
```

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

Explanation/Reference:
Explanation:

```
[root@tecmint ~]#
[root@tecmint ~]# yum install httpd
Loaded plugins: fastestmirror, refresh-packagekit
Setting up Install Process
Loading mirror speeds from cached hostfile
 * base: centos.excellmedia.net
 * epel: epel.scopesky.iq
 * extras: centos.excellmedia.net
 * updates: centos-hn.viettelidc.com.vn
Resolving Dependencies
There are unfinished transactions remaining. You might consider running yum-comp
lete-transaction first to finish them.
_
```

```
[root@tecmint ~]#
[root@tecmint ~]# systemctl start httpd
[root@tecmint ~]#
[root@tecmint ~]# systemctl enable httpd
Created symlink from /etc/systemd/system/multi-user.target.wants/httpd.service to /usr/lib/systemd/system/htt
[root@tecmint ~]#
[root@tecmint ~]# systemctl status httpd
● httpd.service - The Apache HTTP Server
   Loaded: loaded (/usr/lib/systemd/system/httpd.service; enabled; vendor preset: disabled)
   Active: active (running) since Tue 2017-06-27 06:51:35 EDT; 14s ago
     Docs: man:httpd(8)
           man:apachectl(8)
 Main PID: 17981 (httpd)
   Status: "Total requests: 0; Current requests/sec: 0; Current traffic:   0 B/sec"
   CGroup: /system.slice/httpd.service
           ├─17981 /usr/sbin/httpd -DFOREGROUND
           ├─17982 /usr/sbin/httpd -DFOREGROUND
           ├─17983 /usr/sbin/httpd -DFOREGROUND
           ├─17984 /usr/sbin/httpd -DFOREGROUND
           ├─17985 /usr/sbin/httpd -DFOREGROUND
           └─17986 /usr/sbin/httpd -DFOREGROUND

Jun 27 06:51:35 tecmint systemd[1]: Starting The Apache HTTP Server...
Jun 27 06:51:35 tecmint httpd[17981]: AH00558: httpd: Could not reliably determine the server's fully qualifi
Jun 27 06:51:35 tecmint systemd[1]: Started The Apache HTTP Server.
[root@tecmint ~]#
```

QUESTION 5
DRAG DROP

The lead Linux has added a disk, /dev/sdd, to a VM that is running out of disk space. Place the following steps in the correct order from first (1) to last (4) to add the disk to the existing LVM.

Select and Place:

Correct Answer:

Section: (none)
Explanation

Explanation/Reference:
Reference: https://www.rootusers.com/how-to-increase-the-size-of-a-linux-lvm-by-expanding-the-virtual-machine-disk/

QUESTION 6
An administrator receives a warning about a file system filling up, and then identifies a large file located at /tmp/largelogfile. The administrator deletes the file, but no space is recovered on the file system.

Which of the following commands would BEST assists the administrator in identifying the problem?

A. `lsof  | grep largelogfile`
B. `pkill /tmp/largelogfile`
C. `pgrep largelogfile`
D. `ps -ef  | grep largelogfile`

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Reference: https://access.redhat.com/solutions/2316

QUESTION 7

Which of the following can be used to boot a DVD from a remote device to initialize a Linux system setup on bare metal hardware as if it is a local DVD?

A. UEFI
B. PXE
C. NFS
D. GRUB

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Reference: https://access.redhat.com/documentation/en-us/red_hat_enterprise_linux/6/html/installation_guide/ch-boot-x86

QUESTION 8
After starting a long-running script, a systems administrator needs to verify the frequency of what is filling up the /var partition and kill it because it is consuming too much space.

Which of the following is the correct sequence given only a terminal is available?

A.
```
1. CTRL-C
2. bg
3. watch df  /var
4. CTRL-C
5. fg
6. CTRL-Z
```
B.
```
1. CTRL-C
2. fg
3. watch df  /var
4. CTRL-Z
5. bg
6. CTRL-Z
```
C.
```
1. CTRL-Z
2. bg
3. watch df  /var
4. CTRL-C
5. fg
6. CTRL-C
```
D.
```
1. CTRL-Z
2. bg
3. watch df  /var
4. CTRL-Z
5. fg
6. CTRL-C
```

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:

QUESTION 9
A Linux administrator must identify a user with high disk usage. The administrator runs the # du –s /home/* command and gets the following output:

```
43      /home/User1

2701    /home/User2

133089  /home/User3

3611    /home/User4
```

Based on the output, User3 has the largest amount of disk space used. To clean up the file space, the administrator needs to find out more information about the specific files that are using the most disk space.

Which of the following commands will accomplish this task?

A. `df –k /home/User/files.txt`
B. `du –a /home/User3/*`
C. `du –sh /home/User/`
D. `find . –name /home/User3 –print`

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Reference: https://unix.stackexchange.com/questions/37221/finding-files-that-use-the-most-disk-space

QUESTION 10
A Linux server has multiple IPs. A Linux administrator needs to verify if the HTTP server port is bound to the correct IP.

Which of the following commands would BEST accomplish this task?

A. `route`
B. `host`
C. `nslookup`
D. `netstat`
E. `ip`

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
Reference: https://www.tecmint.com/find-listening-ports-linux/

QUESTION 11
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/

QUESTION 12
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`

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Reference: https://www.thegeekstuff.com/2012/04/curl-examples/

QUESTION 13
Which of the following BEST describes running on a Linux system?

A. Containers only need the namespaces functionally to run on a Linux system available since kernel 2.6.
B. Containers need a hypervisor to run 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 14
A networked has been crashing intermittently. A Linux administrator would like to write a shell script that will attempt to ping the server and email an alert if the server fails to respond. The script will later be scheduled via cron job.

Which of the following scripts would BEST accomplish this task?

A.
```
SERVER=''192.168.1.50''

RESULT='ping -C 2 $SERVER'

if [ !$RESULT ]; then

        echo "Server is down" | mail -s "Server down" admin@email_address.com

fi
```
B.
```
SERVER="192.168.1.50"

ping -c 2 $SERVER >/dev/null 2>/dev/null

if [ $? -ge 1 ]; then

        echo "Server is down" | mail -s "Server down" admin@email_address.com

fi
```
C.
```
SERVER="192.168.1.50"

RESULT='ping -c 2 $SERVER >/dev/null 2>/dev/null'

while [ $RESULT != 1 ];

do

        echo "Server is down" | mail -s "Server down" admin@email_address.com

done
```
C.

D.
```
SERVER="192.168.1.50"

ping -c 2 $SERVER >/dev/null 2>/tmp/fail.log

if [ -f /tmp/fail/log ]; then

        echo "Server is down" | mail -s "Server down" admin@email_address.com

fi
```

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:

QUESTION 15
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 &`

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:

QUESTION 16
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 17
A junior systems 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 18
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

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 19
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=sysetm_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 20
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 21
An administrator is analyzing a Linux server which was recently hacked.

Which of the following will the administrator use to find all unsuccessful login attempts?

A. `nsswitch`

B. `faillock`

C. `pam_tally2`

D. `passwd`

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:

QUESTION 22
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`

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 23
An administrator is attempting to block SSH connections to 192.168.10.24 using the Linux firewall. After
implementing a rule, a connection refused error is displayed when attempting to SSH to 192.168.10.24.

Which of the following rules was MOST likely implemented?

A. `iptables -A -p tcp -d 192.168.10.24 -dropt 22 -j REJECT`
B. `iptables -A -p tcp -d 192.168.10.24 -dropt 22 -j DROP`
C. `iptables -A -p tcp -d 192.168.10.24 -dropt 22 -j FORWARD`
D. `iptables -A -p tcp -d 192.168.10.24 -dropt 22 -j REFUSE`

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Reference: https://www.golinuxhub.com/2014/03/how-to-allowblock-ssh-connection-from.html

QUESTION 24
A junior Linux administrator is setting up system-wide configuration settings. The goal is to ensure the PATH
environment variable includes the following locations for all users who log into a Linux system.

```
/usr/local/bin
/usr/local/sbin
```

The administrator issues the following commands at the terminal:

```
echo $PATH
cat /etc/profile
```

Respectively, the output of these commands is as follows:

```
/usr/bin:/usr/sbin:/sbin:/bin


# /etc/profile: system-wide .profile file for the Bourne shell (sh(1))
# and Bourne compatible shells (bash(1), ksh(1), ash(1), …).


if [ 'id -u' -eg 0 ]; then
PATH="usr/bin:/usr/sbin:/sbin:/bin"
else
PATH="/usr/local/games"
fi
export PATH
```

Given this output, which of the following would be the BEST action for the administrator to perform to address this issue?

A. Update the `/etc/profile.d` file using a text editor, navigate to the PATH element add the missing locations, and run the bash_completion.sh script to update the changes.
B. Update the `/etc/profile` file using a text editor, navigate to the PATH element, add the missing locations and run the `. /etc/profile` command to update the changes.
C. Update the `/etc/profile.d` file using a text editor, navigate to the PATH element, add the missing locations, and reboot to update the changes.
D. Update the `/etc/profile` file using a text editor navigate to the PATH element, add the missing locations, and restart the bash process to update the changes.

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

QUESTION 25
A Linux systems administrator needs to provision multiple web servers into separate regional datacenters. The systems architect has instructed the administrator to define the server infrastructure using a specific tool that consumes a text-based file.

Which of the following is the BEST reason to do this?

A. To document the infrastructure so it can be included in the system security plan
B. To ensure the administrator follows the planning phase of the system development life cycle
C. To define the infrastructure so it can be provisioned consistently with minimal manual tasks
D. To validate user requirements have been met within each regional datacenter for compliance

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

QUESTION 26
A Linux systems 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 27
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`

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Reference: https://shapeshed.com/unix-ping/

QUESTION 28
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 29
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`

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Reference: https://unix.stackexchange.com/questions/232946/how-to-copy-all-files-from-a-directory-to-a-remote-directory-using-scp

QUESTION 30
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 31
A Linux administrator has configured a Linux system to be used as a router. The administrator confirms that
two network adapters are properly installed and functioning correctly. In addition, the output of the iptables `–L`

command appears to contain a complete firewall configuration.

Which of the following commands does the administrator need to issue for the router to be fully functional?

A. `echo "1" > /proc/sys/net/ipv4/ip_forward`
B. `echo "0" > /proc/sys/net/ipv4/tcp_abort_on_overflow`
C. `echo "0" > /proc/sys/net/ipv4/max_connections`
D. `echo "1" > /proc/sys/net/ipv4/ip_default_ttl`

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 32
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 33
A systems administrator wants to deploy several applications to the same server quickly. Each application should be abstracted from the host with its own dependencies and libraries and utilize a minimal footprint.

Which of the following would be BEST in this scenario?

A. Virtual machines
B. Type 2 hypervisor
C. Chroot jails
D. Containers

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:

QUESTION 34

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`

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Reference: https://access.redhat.com/documentation/en-us/red_hat_enterprise_linux/6/html/security-enhanced_linux/sect-security-enhanced_linux-working_with_selinux-selinux_contexts_labeling_files

QUESTION 35
A new corporate policy states that Bluetooth should be disabled on all company laptops. Which of the following commands would disable the use of Bluetooth?

A. `echo "blacklist bluetooth" > /etc/modprobe.d/blacklist-bluetooth`
B. `echo "kill bluetooth" > /etc/modprobe.d/kill-bluetooth`
C. `echo "modprobe bluetooth" > /etc/modprobe.d/modprbe-bluetooth`
D. `echo "rmod bluetooth" > /etc/modprobe.d/rmmod-bluetooth`

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:

QUESTION 36
A junior Linux administrator is installing a new application with CPU architecture requirements that have the following specifications:

x64 bit
3.0GHz speed
Minimum quad core

The administrator wants to leverage existing equipment but is unsure whether the requirements of these systems are adequate. The administrator issues the following command `cat/proc/cpuinfo`. The output of the command is as follows:

```
processor:        0
vendor_id:        GenuineIntel
cpu_family:       x64
model:            58
model name:       Intel (R) Core(TM) i7-3687U @2.10 GHz
stepping:         9
microcode:        0x1c
cpu MHz:          2593.84
cache size:       4096KB
siblings:         1
core id:          0
cpd cores:        4
```

Which of the following is the recommended course of action the administrator should take based on this output?

A. Install the application, as the system meets the application requirements
B. Procure new equipment that matches the recommended specifications
C. Recompile the Linux kernel to support the installation.
D. Reconfigure `lib` modules to support the new application.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 37
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 38
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.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Reference: https://phoenixnap.com/kb/how-to-change-root-password-linux

QUESTION 39
A Linux administrator wants to fetch a Git repository from a remote Git server.

Which of the following is the BEST command to perform this task?

A. `git checkout`
B. `git clone`
C. `git merge`
D. `git config`

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Reference: https://git-scm.com/book/en/v2/Git-Basics-Working-with-Remotes

QUESTION 40
An administrator needs to create a shared directory in which all users are able, write, and execute its content but none of the regular users are able to delete any content.

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

A. `rwxrwxrwt`
B. `rwxrwxrws`
C. `rwxrwxrwx`
D. `rwxrwxrw*`

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:

QUESTION 41

A systems administrator has finished building a new feature for the monitoring software in a separate Git branch.

Which of the following is the BEST method for adding the new feature to the software's master branch?

A. Merge the changes from the feature branch to the master branch.
B. Save the changes to the master branch automatically with each Git commit.
C. Clone the feature branch into the master branch.
D. Pull the changes from the feature branch into the master branch.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Reference: https://git-scm.com/book/en/v2/Git-Branching-Basic-Branching-and-Merging

QUESTION 42
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 43
Which of the following configuration management tools is considered agentless?

A. Ouppet
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 44
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 45
Which of the following is a difference between YAML and JSON?

A. Users can comment in YAML but not in JSON
B. JSON only curly brackets, while YAML only uses square brackets
C. JSON is used in web development, while YAML is used solely in back-end systems.
D. YAML has been deprecated for JSON.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Reference: https://www.json2yaml.com/yaml-vs-json

QUESTION 46
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/meninfo ; swapon / swapfile`

Correct Answer: A

QUESTION 47

A junior Linux administrator is optimizing a system in which an application needs to take priority 0 when running the process. The administrator runs the ps command and receives the following output:

```
PID   PPID   TTY      Time       CMD

8481  2      pts/17   16:40:00   app

9854  0      pts/17   16:40:00   ps
```

Given this scenario, which of the following steps will address this issue?

A. Issue the command `ronice -n 0 -p 8481`
B. Issue the command `renice -p 8481`
C. Issue the command `renice -p 0 ~n 8481`
D. Issue the command `renice -n 8481`

Correct Answer: D

QUESTION 48

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.
```
# mkdir -p /mnt/testvol

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

# 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
```

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:

QUESTION 49
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`

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 50
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`

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

QUESTION 51
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 52
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 53
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

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Reference: https://en.wikipedia.org/wiki/Vmlinux

QUESTION 54
Ann, a junior systems administrator, is required to add a line to the `/etc/yum.conf` file. However, she receives the following error message when she tries to add the line:

```
root@comptia:~# echo "line" > /etc/yum.conf

-su: /etc/yum.conf: Operation not permitted
```

Ann performs some diagnostics to attempt to find the root cause:

```
root@comptia:~# ls -l /etc/yum.conf
-rw-r-r-1 root root 970 Jan 30 2018 /etc/yum.conf


root@comptia:~# lsattr /etc/yum.conf
----i--------e-- /etc/yum.conf


root@comptia:~# df -i /etc/yum/conf
Filesystem    Inodes    IUsed    IFree    IUse%   Mounted on
/dev/sda1     524288    192861   331427   37%     /
```

Which of the following commands should Ann execute to write content to `/etc/yum`?

A. `chmod 755 /etc/yum.conf`
B. `setfacl -m m:rw /etc/yum.conf`
C. `chattr -I /etc/yum.conf`
D. `setenforce 0`

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 55
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 56
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`

Correct Answer: E
Section: (none)
Explanation

Explanation/Reference:

QUESTION 57
Which of the following server roles would assign a host IP address?

A. DHCP
B. NTP
C. DNS
D. SSH

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 58
Which of the following commands would show the default printer on a Linux system?

A. `lpr`
B. `lpq`
C. `lpstat`
D. `lspci`

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

QUESTION 59
A system administrator has set up third-party log aggregation agents across several cloud instances. The systems administrator wants to create a dashboard of failed SSH attempts and the usernames used.

Which of the following files should be watched by the agents?

A. `/var/log/audit/audit.log`
B. `/var/log/kern.log`
C. `/var/log/monitor`
D. `/etc/rsyslog.conf`

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:

QUESTION 60
A systems administrator must clean up all application files in the directory /var/log/app. However, the company's security policy requires the files to be kept on the backup server for one year. The Linux server has only the tar and bzip2 packages installed.

Which of the following commands will package and compress the files?

A. `tar –zcvf applicationfiles.tar.bz2 /var/log/app/*`
B. `tar –jcvf applicationfiles.tar.bz2 /var/log/app/*`
C. `tar –cvf applicationfiles.tar.bz2 /var/log/app/*`
D. `tar –xvf applicationfiles.tar.bz2 /var/log/app/*`

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:

QUESTION 61
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 62
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/