

CompTIA Linux+ XK0-005

100 Questions & Answers

Welcome to your complete Linux+ XK0-005 practice questions collection. This set is designed not just for testing — but also to **teach, strengthen, and deepen your real exam readiness** through practical, command-line-focused Linux administration scenarios.



Learning Objectives and Expectations

You'll get:

- Real-world style questions, modeled after CompTIA exam wording.
- Formatted in sets of **10 questions followed by 10 answers** for efficient self-checking.
- Short explanations to clarify answers and reinforce essential Linux+ concepts.

Linux+ SY0-701 Domains

Each domain is weighted differently on the exam, with Security Operations being the largest:

- Domain 1: System Management (32%)
- Domain 2: Security (21%)
- Domain 3: Scripting, Containers, and Automation (19%)
- Domain 4: Troubleshooting (28%)

Quick Reminder: How the Exam Works

- **Number of Questions:** Up to 90
- **Format:** Multiple Choice + Performance-Based Questions (PBQs)
- **Time Limit:** 90 minutes
- **Passing Score:** 720 / 900
- **Test Provider:** Pearson VUE (onsite or online)

Questions By Domain

Domain	Title	Questions Assigned	Question Numbers
Domain 1	System Management (32%)	32 Questions	Q1–2, Q5–6, Q10, Q12–13, Q16, Q20–21, Q25–27, Q31–32, Q35, Q41–42, Q50, Q52–53, Q57, Q62–63, Q66, Q70–71, Q77–78, Q84, Q86, Q90
Domain 2	Security (21%)	21 Questions	Q3, Q7–9, Q15, Q18–19, Q22, Q30, Q36, Q38–40, Q54, Q59, Q65, Q72–73, Q75, Q85
Domain 3	Scripting, Containers, Automation (19%)	19 Questions	Q4, Q11, Q14, Q23, Q33–34, Q37, Q43–44, Q46, Q51, Q55, Q60–61, Q67, Q74, Q79, Q88, Q95
Domain 4	Troubleshooting (28%)	28 Questions	Q17, Q24, Q28–29, Q45, Q47–49, Q56, Q58–60, Q64, Q68–69, Q76, Q80–83, Q87, Q89, Q91–94, Q96–97, Q99–100

Remember — you don't need to be perfect to pass!

The passing score is about **80%**, meaning you can **miss up to 18 questions** and still pass. Focus on **understanding and practice**, not memorizing every flag.

Missing a few tricky questions won't ruin your chances — **stay calm**, trust your preparation, and keep moving forward.

Questions 1–10

Q1.

Which of the following commands is used to display the current runlevel of a Linux system?

- A) runlevel
 - B) level
 - C) whoami
 - D) systemctl
-

Q2.

What does the chmod 755 command do?

- A) Gives read/write to owner only
 - B) Gives full access to everyone
 - C) Gives full access to owner, and read/execute to others
 - D) Denies all access
-

Q3.

Which file contains the user password aging information on most Linux systems?

- A) /etc/passwd
 - B) /etc/group
 - C) /etc/login.defs
 - D) /etc/shadow
-

Q4.

Which command is used to safely edit the sudoers file?

- A) nano /etc/sudoers
 - B) sudoedit
 - C) visudo
 - D) vim /etc/sudoers
-

Q5.

Which of the following commands can display the UUID of a disk partition?

- A) mount
- B) blkid
- C) fdisk
- D) lsblk

Q6.

What does the `useradd -m` command do?

- A) Adds a user without a home directory
 - B) Adds a user and creates a home directory
 - C) Adds a user and assigns sudo
 - D) Adds a user to `/etc/shadow`
-

Q7.

Which file system supports journaling and is commonly used in modern Linux distributions?

- A) FAT32
 - B) ext2
 - C) ext4
 - D) ISO9660
-

Q8.

Which command will show all currently loaded kernel modules?

- A) `lsmod`
 - B) `modprobe`
 - C) `dmesg`
 - D) `uname -a`
-

Q9.

Which command can display memory usage in a human-readable format?

- A) `free -h`
 - B) `top`
 - C) `vmstat`
 - D) `meminfo`
-

Q10.

Which of the following commands will display active network connections and listening ports?

- A) `netstat -lntu`
- B) `ping -a`
- C) `ss -a`
- D) `dig +tcp`

Answers 1–10

A1.

Answer: A) runlevel

Explanation: runlevel shows the current and previous system runlevels. It's used in SysVinit systems, while systemctl get-default is used with systemd.

A2.

Answer: C) Gives full access to owner, and read/execute to others

Explanation: chmod 755 sets permissions to rwxr-xr-x: owner can read/write/execute; group and others can read/execute.

A3.

Answer: D) /etc/shadow

Explanation: The /etc/shadow file stores encrypted passwords and password aging info for user accounts.

A4.

Answer: C) visudo

Explanation: visudo checks for syntax errors and locks the sudoers file during editing, preventing corruption.

A5.

Answer: B) blkid

Explanation: blkid lists block device attributes, including UUIDs, labels, and file system types.

A6.

Answer: B) Adds a user and creates a home directory

Explanation: The -m option ensures a home directory (e.g., /home/user) is created when the user is added.

A7.

Answer: C) ext4

Explanation: ext4 is a journaling file system and is widely used in modern Linux distros for reliability and performance.

A8.

Answer: A) lsmod

Explanation: lsmod lists all currently loaded kernel modules. It's useful for troubleshooting hardware or driver issues.

A9.

Answer: A) free -h

Explanation: The free command shows memory and swap usage. The -h flag makes the output human-readable (e.g., MB/GB).

A10.

Answer: A) netstat -lntu

Explanation: This command shows listening (-l), numeric (-n), TCP (-t), and UDP (-u) ports. It's commonly used for network diagnostics.

Questions 11–20

Q11.

Which of the following commands is used to modify a user's password expiration policy?

- A) usermod
 - B) passwd -e
 - C) chage
 - D) shadowedit
-

Q12.

What is the purpose of the /etc/fstab file?

- A) Manages DNS name resolution
 - B) Stores startup services
 - C) Lists user password settings
 - D) Configures mount points for filesystems
-

Q13.

Which command allows you to view the last system boot messages from the kernel ring buffer?

- A) dmesg
 - B) journalctl
 - C) syslog
 - D) uptime
-

Q14.

What is the result of the following command: `grep "^root" /etc/passwd`?

- A) Finds all users with root privileges
 - B) Searches for any user whose name starts with "root"
 - C) Shows every user account
 - D) Locates password hashes for root
-

Q15.

Which of the following commands will show information about LVM logical volumes?

- A) lvscan
- B) fdisk -l

- C) mkfs.ext4
 - D) mount -a
-

Q16.

What is the main role of the systemd init system?

- A) Disk partitioning
 - B) Boot loader management
 - C) Service and process management
 - D) GUI configuration
-

Q17.

Which file contains user-defined environment variables for Bash shell sessions?

- A) /etc/environment
 - B) ~/.bashrc
 - C) ~/.profile
 - D) All of the above
-

Q18.

Which tool is best for capturing live network traffic on a Linux server?

- A) netstat
 - B) ping
 - C) tcpdump
 - D) ss
-

Q19.

Which of the following commands is used to install a .deb package manually?

- A) yum install
 - B) apt-get build
 - C) dpkg -i
 - D) rpm -ivh
-

Q20.

Which RAID level uses mirroring to provide redundancy?

- A) RAID 0
- B) RAID 1
- C) RAID 5
- D) RAID 6

Answers 11–20

A11.

Answer: C) chage

Explanation: chage modifies user password aging and expiration policies. Use chage -l user to list current settings.

A12.

Answer: D) Configures mount points for filesystems

Explanation: /etc/fstab defines which filesystems to mount, where, and with what options during system boot.

A13.

Answer: A) dmesg

Explanation: dmesg reads messages from the kernel ring buffer — usually showing boot and hardware info.

A14.

Answer: B) Searches for any user whose name starts with "root"

Explanation: The ^ anchor in grep means “start of line”, so it matches lines that begin with "root".

A15.

Answer: A) lvscan

Explanation: lvscan scans all volume groups and lists logical volumes created using LVM.

A16.

Answer: C) Service and process management

Explanation: systemd is the system and service manager used in most modern Linux distributions to control system startup and manage services.

A17.

Answer: D) All of the above

Explanation: Environment variables can be defined globally in `/etc/environment`, or per-user in `~/.bashrc` or `~/.profile`.

A18.

Answer: C) tcpdump

Explanation: tcpdump captures live packet traffic on interfaces and is ideal for detailed packet-level network troubleshooting.

A19.

Answer: C) dpkg -i

Explanation: `dpkg -i package.deb` is used to manually install Debian packages. Use `apt` for automatic dependency handling.

A20.

Answer: B) RAID 1

Explanation: RAID 1 provides redundancy by **mirroring** data across two or more drives.

Questions 21–30

Q21.

Which command would you use to determine which ports a service is actively listening on?

- A) netstat -tulpn
 - B) nmap localhost
 - C) ping -p
 - D) dig
-

Q22.

Which shell feature allows the use of | to send the output of one command to another?

- A) Wildcards
 - B) Pipes
 - C) Globbing
 - D) Variables
-

Q23.

What is the purpose of cron in Linux systems?

- A) Monitor processes
 - B) Schedule repetitive tasks
 - C) Track user logins
 - D) Compress backups
-

Q24.

What does the umask command control?

- A) Active shell
 - B) Default permission bits for new files/directories
 - C) Encrypted file systems
 - D) Disk quota
-

Q25.

You need to allow a web server to listen on port 80 using firewalld. What command should you run?

- A) ufw allow http
- B) firewall-cmd --add-service=http --permanent

- C) iptables -A INPUT -p tcp --dport 443 -j ACCEPT
 - D) firewalld enable httpd
-

Q26.

Which of the following describes a symbolic link?

- A) A file copy
 - B) A filesystem snapshot
 - C) A reference that points to another file
 - D) A compressed version of a file
-

Q27.

What is the function of the awk command in Linux?

- A) Encrypt data
 - B) Compile software
 - C) Format and extract fields from text
 - D) List open files
-

Q28.

Which of the following is true about sudo?

- A) Allows any user to run anything
 - B) Grants limited administrative privileges
 - C) Requires a reboot to activate
 - D) Only works with GUI applications
-

Q29.

What is stored in the /var/log directory?

- A) Kernel modules
 - B) User home directories
 - C) System logs
 - D) Installed packages
-

Q30.

Which command will search recursively for the string "error" in all .log files under /var/log?

- A) grep error /var/log/*.log
- B) grep -r error /var/log/*.log

- C) `find /var/log -name "*.log" | grep error`
D) `grep -r "error" /var/log`
-

Answers 21–30

A21.

Answer: A) `netstat -tulpn`

Explanation: Displays all TCP/UDP ports with process names and PID. Replaced in some distros by `ss`.

A22.

Answer: B) Pipes

Explanation: A pipe (`|`) allows the output of one command to be passed as input to another. Example: `ps aux | grep apache`.

A23.

Answer: B) Schedule repetitive tasks

Explanation: `cron` is used to schedule scripts or commands to run at specific intervals (daily, weekly, etc.).

A24.

Answer: B) Default permission bits for new files/directories

Explanation: `umask` sets which permission bits will be "masked out" when new files are created.

A25.

Answer: B) `firewall-cmd --add-service=http --permanent`

Explanation: This adds the HTTP service to `firewalld` permanently. Don't forget to `--reload`.

A26.

Answer: C) A reference that points to another file

Explanation: A symbolic link is like a shortcut or pointer to another file or directory.

A27.

Answer: C) Format and extract fields from text

Explanation: awk is a powerful text-processing tool used for manipulating and extracting column-based data.

A28.

Answer: B) Grants limited administrative privileges

Explanation: sudo allows controlled access to root commands without switching to root directly.

A29.

Answer: C) System logs

Explanation: /var/log holds system, application, and service logs like syslog, auth.log, and dmesg.

A30.

Answer: D) `grep -r "error" /var/log`

Explanation: -r enables recursive search. To target only .log files, use find or combine grep with --include.

Questions 31–40

Q31.

What is the purpose of the tar command in Linux?

- A) Extract data from databases
 - B) Monitor services
 - C) Archive and compress files
 - D) Encrypt files
-

Q32.

Which directory contains configuration files for installed services and the system?

- A) /var
 - B) /etc
 - C) /opt
 - D) /tmp
-

Q33.

Which command is used to check and repair Linux filesystems?

- A) fdisk
 - B) e2fsck
 - C) mkfs
 - D) mount
-

Q34.

What command is used to build a custom kernel module into a running system?

- A) insmod
 - B) lsmod
 - C) modinfo
 - D) rmmod
-

Q35.

What does the df -h command display?

- A) Memory usage
- B) File ownership
- C) Human-readable disk usage by mount point
- D) Inode count

Q36.

Which log file typically records failed login attempts and authentication issues?

- A) /var/log/messages
 - B) /var/log/dmesg
 - C) /var/log/auth.log
 - D) /etc/passwd
-

Q37.

What is the effect of running `chmod 700 script.sh`?

- A) Only the owner can read, write, and execute the file
 - B) Everyone can execute the file
 - C) Group and others can read but not execute
 - D) The file becomes hidden
-

Q38.

Which option would you use with `grep` to ignore case sensitivity when searching?

- A) -v
 - B) -n
 - C) -i
 - D) -r
-

Q39.

What is the purpose of the `cut` command?

- A) Edit large files
 - B) Select and extract fields from lines of input
 - C) Remove lines
 - D) Sort lines alphabetically
-

Q40.

Which command is used to update the list of available packages on a Debian-based system?

- A) `apt upgrade`
 - B) `apt install`
 - C) `apt update`
 - D) `dpkg -l`
-

Answers 31–40

A31.

Answer: C) Archive and compress files

Explanation: tar is used to create and manipulate archive files. Often combined with compression: tar -czvf.

A32.

Answer: B) /etc

Explanation: This directory contains system-wide configuration files and startup scripts.

A33.

Answer: B) e2fsck

Explanation: e2fsck checks and repairs ext-based filesystems. It's often used on unmounted volumes.

A34.

Answer: A) insmod

Explanation: insmod inserts a kernel module into the running kernel. Use modprobe for dependency handling.

A35.

Answer: C) Human-readable disk usage by mount point

Explanation: df shows disk space by mount; -h gives sizes in KB/MB/GB.

A36.

Answer: C) /var/log/auth.log

Explanation: This log stores authentication-related events like sudo and failed logins.

A37.

Answer: A) Only the owner can read, write, and execute the file

Explanation: 700 gives full permissions to the owner, and no permissions to group/others.

A38.

Answer: C) -i

Explanation: The -i option ignores case sensitivity. Example: `grep -i "linux"`.

A39.

Answer: B) Select and extract fields from lines of input

Explanation: cut is used to slice out specific sections from text. Example: `cut -d ':' -f1 /etc/passwd`.

A40.

Answer: C) apt update

Explanation: apt update refreshes the package list. Follow with apt upgrade to install updates.

Questions 41–50

Q41.

What is the default shell for most Linux distributions?

- A) csh
 - B) fish
 - C) bash
 - D) zsh
-

Q42.

Which command will recursively change ownership of a directory and all its contents?

- A) chmod -R
 - B) chown -R
 - C) usermod -R
 - D) setfacl -m
-

Q43.

Which system file defines static hostname configuration in most Linux distributions?

- A) /etc/network/interfaces
 - B) /etc/hostname
 - C) /etc/hosts
 - D) /etc/resolv.conf
-

Q44.

Which option for the ps command displays all processes in full detail across users?

- A) ps aux
 - B) ps -p
 - C) ps -e
 - D) ps u
-

Q45.

Which command displays real-time CPU usage, load average, and running processes?

- A) htop
- B) ps
- C) who
- D) kill

Q46.

What is the default location for a non-root user's crontab?

- A) /etc/crontab
 - B) /etc/cron.d/user
 - C) /var/spool/cron/username
 - D) ~/.crontab
-

Q47.

Which of the following files is used to define a persistent static IP address on systems using Netplan?

- A) /etc/network/interfaces
 - B) /etc/netplan/config.yaml
 - C) /etc/systemd/networkd.conf
 - D) /etc/dhcp/dhclient.conf
-

Q48.

What will the echo \$? command display?

- A) Last background process PID
 - B) The current shell level
 - C) The return code of the last executed command
 - D) The value of the last positional parameter
-

Q49.

What does the tee command do?

- A) Compresses input to a file
 - B) Writes output to a file and to stdout simultaneously
 - C) Removes duplicate lines
 - D) Displays a tree view of the file system
-

Q50.

Which file controls global environment variables set at login for all users?

- A) /etc/profile
 - B) ~/.bash_profile
 - C) ~/.bashrc
 - D) /etc/passwd
-

Answers 41–50

A41.

Answer: C) bash

Explanation: Most Linux distributions default to the Bourne Again SHell (bash), especially for scripting and administration.

A42.

Answer: B) chown -R

Explanation: The -R (recursive) option tells chown to change ownership of the directory and all files/subdirectories within it.

A43.

Answer: B) /etc/hostname

Explanation: This file stores the system's static hostname. It's read during boot to set the system name.

A44.

Answer: A) ps aux

Explanation: ps aux lists all processes across all users with full details including PID, CPU/mem usage, and command.

A45.

Answer: A) htop

Explanation: htop is an enhanced, real-time system monitor for processes, CPU, memory, and load averages.

A46.

Answer: C) /var/spool/cron/username

Explanation: User-specific crontabs are stored in this directory and managed via the crontab command.

A47.

Answer: B) /etc/netplan/config.yaml

Explanation: Netplan uses YAML files stored in `/etc/netplan/` to configure networking in modern Ubuntu-based systems.

A48.

Answer: C) The return code of the last executed command

Explanation: `$?` holds the exit status of the last command: 0 means success, non-zero means error.

A49.

Answer: B) Writes output to a file and to stdout simultaneously

Explanation: `tee` is useful in scripts and pipelines where you want output to go both to the screen and a file.

A50.

Answer: A) `/etc/profile`

Explanation: This script sets global environment variables at login. It's sourced for all users in login shells.

Questions 51–60

Q51.

Which command will list all available services and their statuses on a systemd-based system?

- A) `service --list`
 - B) `systemctl list-units --type=service`
 - C) `chkconfig --list`
 - D) `initctl list`
-

Q52.

Which file defines the primary DNS server for name resolution on a Linux system?

- A) `/etc/hostname`
 - B) `/etc/hosts`
 - C) `/etc/nsswitch.conf`
 - D) `/etc/resolv.conf`
-

Q53.

Which of the following commands would display the kernel version?

- A) `uname -a`
 - B) `dmesg | head`
 - C) `uptime`
 - D) `ls /boot`
-

Q54.

Which of the following is a journaling file system?

- A) ext2
 - B) ext4
 - C) FAT32
 - D) ISO9660
-

Q55.

What is the primary function of the `modprobe` command?

- A) Remove memory modules
- B) Rebuild the GRUB config
- C) Load kernel modules with dependencies
- D) Display system logs

Q56.

What does the history command do?

- A) Displays past file modifications
 - B) Shows bash command history
 - C) Tracks login events
 - D) Audits kernel changes
-

Q57.

What option with the ls command displays file sizes in human-readable format?

- A) -a
 - B) -s
 - C) -h
 - D) -r
-

Q58.

Which command is used to create a new logical volume in LVM?

- A) mkfs
 - B) lvcreate
 - C) vgcreate
 - D) pvcreate
-

Q59.

What does the /etc/ssh/sshd_config file configure?

- A) SSH client behavior
 - B) SSH server settings
 - C) Firewall rules for port 22
 - D) Public key encryption settings
-

Q60.

Which environment variable contains the list of directories the shell searches for executables?

- A) USER
 - B) SHELL
 - C) HOME
 - D) PATH
-

Answers 51–60

A51.

Answer: B) `systemctl list-units --type=service`

Explanation: This command shows all active services managed by systemd on the system.

A52.

Answer: D) `/etc/resolv.conf`

Explanation: This file defines nameservers used for DNS resolution.

A53.

Answer: A) `uname -a`

Explanation: `uname -a` displays full system info, including kernel version, architecture, and hostname.

A54.

Answer: B) `ext4`

Explanation: `ext4` is a modern journaling file system, commonly used by many Linux distros.

A55.

Answer: C) Load kernel modules with dependencies

Explanation: `modprobe` loads a kernel module and any dependencies. It's safer than `insmod`.

A56.

Answer: B) Shows bash command history

Explanation: `history` shows previously entered shell commands, stored per user.

A57.

Answer: C) -h

Explanation: Combined with -l, it shows sizes in KB/MB/GB instead of bytes: ls -lh.

A58.

Answer: B) lvcreate

Explanation: lvcreate is used to create logical volumes within a volume group in LVM.

A59.

Answer: B) SSH server settings

Explanation: This file controls how the OpenSSH server (sshd) behaves (e.g., port, root login, key auth).

A60.

Answer: D) PATH

Explanation: PATH tells the shell where to look for executables when commands are run.

Questions 61–70

Q61.

Which command is used to display the current disk I/O statistics?

- A) uptime
 - B) vmstat
 - C) iostat
 - D) dstat
-

Q62.

What does the `cut -d ':' -f1 /etc/passwd` command do?

- A) Counts users
 - B) Displays all full lines
 - C) Lists only usernames
 - D) Lists only passwords
-

Q63.

Which of the following commands will archive a directory and compress it with gzip?

- A) `tar -czf archive.tar.gz /dir`
 - B) `gzip /dir`
 - C) `zip /dir`
 - D) `tar -xzf archive.tar.gz`
-

Q64.

Which command shows who is currently logged into the system?

- A) `whoami`
 - B) `who`
 - C) `usershow`
 - D) `id`
-

Q65.

What is the purpose of the `/etc/nsswitch.conf` file?

- A) Maps user to home directories
- B) Defines order of name resolution methods
- C) Configures sudo access
- D) Mounts remote file systems

Q66.

Which of the following best describes the function of a sticky bit on a directory?

- A) Prevents deletion of any files
 - B) Allows users to modify group files
 - C) Only the file owner can delete their files
 - D) Makes files read-only
-

Q67.

How would you list the last 20 lines of a system log file?

- A) logtail -n 20
 - B) tail -n 20 /var/log/syslog
 - C) view /var/log/syslog 20
 - D) less /var/log/syslog -n 20
-

Q68.

Which command will recursively find files with .conf extension in /etc?

- A) find /etc -name "*.conf"
 - B) grep -r "*.conf" /etc
 - C) locate /etc/*.conf
 - D) ls /etc/*.conf -R
-

Q69.

Which Linux command would be used to examine and filter packet traffic on a specific network interface?

- A) nmap
 - B) tcpdump
 - C) dig
 - D) traceroute
-

Q70.

What does the lsof command do?

- A) Lists open files and the processes using them
 - B) Opens file editors
 - C) Formats logs
 - D) Mounts file systems
-

Answers 61–70

A61.

Answer: C) iostat

Explanation: iostat shows CPU stats and disk I/O performance, useful for diagnosing disk bottlenecks.

A62.

Answer: C) Lists only usernames

Explanation: This command uses : as a delimiter and extracts the first field (username) from /etc/passwd.

A63.

Answer: A) tar -czf archive.tar.gz /dir

Explanation: This command creates a gzip-compressed tar archive from the /dir directory.

A64.

Answer: B) who

Explanation: who shows currently logged-in users, their terminals, and login times.

A65.

Answer: B) Defines order of name resolution methods

Explanation: /etc/nsswitch.conf tells Linux how to resolve names (e.g., DNS, files, LDAP).

A66.

Answer: C) Only the file owner can delete their files

Explanation: Sticky bit (mode 1777) is used on directories like /tmp to restrict deletions.

A67.

Answer: B) `tail -n 20 /var/log/syslog`

Explanation: `tail` with `-n` shows the last N lines of a file.

A68.

Answer: A) `find /etc -name "*.conf"`

Explanation: This finds all `.conf` files under `/etc` recursively.

A69.

Answer: B) `tcpdump`

Explanation: `tcpdump` captures and analyzes packets on specified interfaces.

A70.

Answer: A) Lists open files and the processes using them

Explanation: `lsof` ("List Open Files") is great for diagnosing locked files, open ports, and usage conflicts.

Questions 71–80

Q71.

What is the purpose of the mount command in Linux?

- A) Format disk partitions
 - B) Scan for devices
 - C) Attach file systems to the directory tree
 - D) Encrypt directories
-

Q72.

What does `chmod +x script.sh` do?

- A) Deletes the script
 - B) Compiles the script
 - C) Makes the script executable
 - D) Schedules the script to run at boot
-

Q73.

Which of the following symbols represents the root directory?

- A) ~
 - B) /
 - C) ..
 - D) .
-

Q74.

What is the purpose of the `/etc/hosts` file?

- A) Stores DNS server IPs
 - B) Maps IP addresses to hostnames locally
 - C) Lists blocked domains
 - D) Sets SSH server policies
-

Q75.

Which utility is used to monitor and manage SELinux security contexts?

- A) `auditctl`
- B) `getenforce`
- C) `sshd_config`
- D) `gpasswd`

Q76.

Which command allows you to search for packages in Debian-based distributions?

- A) apt update
 - B) apt install
 - C) apt-cache search
 - D) dpkg -i
-

Q77.

Which command is used to configure a persistent hostname on most modern systems?

- A) sethostname
 - B) echo myhost > /etc/hostname
 - C) hostnamectl set-hostname myhost
 - D) sysctl hostname=myhost
-

Q78.

What type of file is /dev/sda in Linux?

- A) Regular file
 - B) Symbolic link
 - C) Device file
 - D) Archive
-

Q79.

Which of the following allows scheduling tasks on boot for systemd systems?

- A) /etc/rc.local
 - B) @reboot in crontab
 - C) systemctl enable <service>
 - D) systemd-reboot.service
-

Q80.

Which command will count the number of lines in a text file?

- A) wc -l file.txt
 - B) cat file.txt | count
 - C) awk '{lines++} END {print lines}' file.txt
 - D) Both A and C
-

Answers 71–80

A71.

Answer: C) Attach file systems to the directory tree

Explanation: mount connects storage devices or partitions to a mount point in the filesystem hierarchy.

A72.

Answer: C) Makes the script executable

Explanation: +x adds execute permission to the file, allowing it to be run as a program.

A73.

Answer: B) /

Explanation: The single forward slash (/) is the root directory of the Linux filesystem.

A74.

Answer: B) Maps IP addresses to hostnames locally

Explanation: /etc/hosts is used for static hostname-to-IP mapping, bypassing DNS.

A75.

Answer: B) getenforce

Explanation: getenforce shows if SELinux is in enforcing, permissive, or disabled mode.

A76.

Answer: C) apt-cache search

Explanation: This searches package names and descriptions in APT repositories.

A77.

Answer: C) hostnamectl set-hostname myhost

Explanation: The hostnamectl command is the preferred way to set hostnames on systemd-based systems.

A78.

Answer: C) Device file

Explanation: /dev/sda is a block device file representing a physical or virtual hard disk.

A79.

Answer: C) systemctl enable <service>

Explanation: This ensures the service starts automatically at boot using systemd.

A80.

Answer: D) Both A and C

Explanation: wc -l counts lines efficiently. The awk alternative also works by incrementing a counter per line.

Questions 81–90

Q81.

Which of the following commands will display a user's group memberships?

- A) groups
 - B) id -Gn
 - C) getent group
 - D) All of the above
-

Q82.

Which command is used to safely shut down a Linux system immediately?

- A) reboot now
 - B) shutdown now
 - C) poweroff
 - D) Both B and C
-

Q83.

Which environment variable defines the user's home directory?

- A) HOME
 - B) USER
 - C) SHELL
 - D) PATH
-

Q84.

What is the result of running `sudo !!`?

- A) Executes the previous command as root
 - B) Logs out the user
 - C) Cancels the last command
 - D) Displays sudo history
-

Q85.

What is the primary purpose of `/etc/login.defs`?

- A) Set cron job defaults
- B) Define password policies and aging rules
- C) Map hostnames to IP addresses
- D) Set up SSH server options

Q86.

Which command shows available disk space on mounted file systems?

- A) lsblk
 - B) du
 - C) df
 - D) mount
-

Q87.

What is the command to create a 2GB swap file?

- A) dd if=/dev/zero of=/swapfile bs=1G count=2
 - B) mkfs.swap /swapfile
 - C) touch /swapfile 2G
 - D) swapoff -a
-

Q88.

Which command would you use to view the contents of a .tar.gz archive without extracting it?

- A) tar -czf file.tar.gz
 - B) tar -tf file.tar.gz
 - C) gunzip file.tar.gz
 - D) gzip -l file.tar.gz
-

Q89.

Which command will remove an LVM logical volume?

- A) lvremove /dev/vgname/lvname
 - B) vgremove /dev/vgname
 - C) pvremove /dev/sdX
 - D) umount /dev/vgname/lvname
-

Q90.

Which command is used to modify firewall settings using firewalld on RHEL-based systems?

- A) ufw
- B) iptables
- C) nft
- D) firewall-cmd

Answers 81–90

A81.

Answer: D) All of the above

Explanation: All listed commands can display group membership. `groups` and `id -Gn` show concise group lists; `getent group` shows full database entries.

A82.

Answer: D) Both B and C

Explanation: `shutdown now` and `poweroff` both immediately halt and power off the system safely.

A83.

Answer: A) HOME

Explanation: The HOME variable holds the absolute path to a user's home directory.

A84.

Answer: A) Executes the previous command as root

Explanation: `!!` recalls the last command. `sudo !!` runs it with elevated privileges.

A85.

Answer: B) Define password policies and aging rules

Explanation: `/etc/login.defs` sets system-wide defaults for password aging, UID ranges, and more.

A86.

Answer: C) `df`

Explanation: `df` displays disk space usage for mounted filesystems. Use `df -h` for human-readable output.

A87.

Answer: A) `dd if=/dev/zero of=/swapfile bs=1G count=2`

Explanation: This creates a 2GB file filled with zeros, commonly used for swap configuration.

A88.

Answer: B) `tar -tf file.tar.gz`

Explanation: The `-t` option lists archive contents without extracting. Use with `-z` for `.gz` files.

A89.

Answer: A) `lvremove /dev/vgname/lvname`

Explanation: `lvremove` deletes logical volumes. Make sure the volume is unmounted first.

A90.

Answer: D) `firewall-cmd`

Explanation: `firewall-cmd` is used on systems with `firewalld` to add/remove rules and services.

Questions 91–100

Q91.

Which command can display detailed information about a specific package on a Debian-based system?

- A) `dpkg -l`
 - B) `dpkg -s <package>`
 - C) `apt list`
 - D) `dpkg --configure`
-

Q92.

What is the primary function of the `/var` directory?

- A) Store user profiles
 - B) Hold system logs and variable data
 - C) Store boot-related files
 - D) Contain installed applications
-

Q93.

Which Linux command can display the current user ID (UID) and group ID (GID)?

- A) `groups`
 - B) `whoami`
 - C) `id`
 - D) `env`
-

Q94.

What is the function of the `journalctl` command?

- A) Displays current processes
 - B) Views `systemd` logs
 - C) Shows scheduled cron jobs
 - D) Displays installed services
-

Q95.

Which system file stores user password hashes?

- A) `/etc/passwd`
- B) `/etc/shadow`
- C) `/etc/login.defs`
- D) `/etc/group`

Q96.

What command will display your system's default target (runlevel in systemd)?

- A) runlevel
 - B) initctl
 - C) systemctl get-default
 - D) targetctl status
-

Q97.

What is the difference between > and >> in shell redirection?

- A) No difference
 - B) > appends; >> overwrites
 - C) > overwrites; >> appends
 - D) Both delete existing files
-

Q98.

Which command is used to compare the contents of two files line by line?

- A) cat
 - B) cmp
 - C) diff
 - D) ls -l
-

Q99.

Which of the following is a benefit of using containers?

- A) Higher RAM capacity
 - B) GUI virtualization
 - C) Lightweight, portable application environments
 - D) Rootless shell access
-

Q100.

Which command would be used to reload firewalld after adding a new rule?

- A) systemctl restart firewall
 - B) firewalld reload
 - C) firewall-cmd --reload
 - D) iptables --reload
-

Answers 91–100

A91.

Answer: B) `dpkg -s <package>`

Explanation: This command shows status, version, description, and dependencies of a specific installed package.

A92.

Answer: B) Hold system logs and variable data

Explanation: The `/var` directory stores log files, mail spools, caches, and other changing data.

A93.

Answer: C) `id`

Explanation: `id` shows the user ID, group ID, and groups the current user belongs to.

A94.

Answer: B) Views `systemd` logs

Explanation: `journalctl` accesses the `systemd` journal — useful for viewing service logs and boot messages.

A95.

Answer: B) `/etc/shadow`

Explanation: This file holds secure, hashed user passwords. It's only readable by root.

A96.

Answer: C) `systemctl get-default`

Explanation: This command shows the default `systemd` target (e.g., `graphical.target`, `multi-user.target`).

A97.

Answer: C) `>` overwrites; `>>` appends

Explanation: `>` creates a new file or overwrites it. `>>` appends to the file if it exists.

A98.

Answer: C) diff

Explanation: diff compares files line by line and highlights differences.

A99.

Answer: C) Lightweight, portable application environments

Explanation: Containers isolate apps with minimal overhead, making them ideal for CI/CD and microservices.

A100.

Answer: C) firewall-cmd --reload

Explanation: After changing firewalld rules, this command applies them without restarting the service.