COMPTIA XK0-005

CompTIA Linux Plus Certification Questions & Answers

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XK0-005
CompTIA Linux+
90 Questions Exam – 720 / 900 Cut Score – Duration of 90 minutes

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#1 Online Certification Guide

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Discover More about the XK0-005 Certification

Are you interested in passing the CompTIA XK0-005 exam? First discover, who benefits from the XK0-005 certification. The XK0-005 is suitable for a candidate if he wants to learn about Infrastructure. Passing the XK0-005 exam earns you the CompTIA Linux+ title.

While preparing for the XK0-005 exam, many candidates struggle to get the necessary materials. But do not worry; your struggling days are over. The XK0-005 PDF contains some of the most valuable preparation tips and the details and instant access to useful **XK0-005 study materials just at one click**.

CompTIA XK0-005 Linux Plus Certification Details:

Exam Name	CompTIA Linux+
Exam Code	XK0-005
Exam Price	$358 (USD)
Duration	90 mins
Number of Questions	90
Passing Score	720 / 900
Books / Training	**CertMaster Learn for Linux+**
Schedule Exam	**Pearson VUE**
Sample Questions	**CompTIA Linux+ Sample Questions**
Practice Exam	**CompTIA XK0-005 Certification Practice Exam**

XK0-005 Syllabus:

Topic	Details
	System Management - 32%

Summarize Linux fundamentals.	- Filesystem Hierarchy Standard (FHS)
	
	• /boot
	• /proc
	• /sys
	• /var
	• /usr
	• /lib
	• /dev
	• /etc
	• /opt
	• /bin
	• /sbin
	• /home
	• /media
	• /mnt
	• /root
	• /tmp
	
	- Basic boot process
	
	• Basic input/output system (BIOS)
	• Unified Extensible Firmware Interface (UEFI)
	• Commands
	  - mkinitrd
	  - grub2-install
	  - grub2-mkconfig
	  - grub2-update
	  - dracut

Topic	Details
	- initrd.img - vmlinuz - Grand Unified Bootloader version 2 (GRUB2) - Boot sources - Preboot eXecution Environment (PXE) - Booting from Universal Serial Bus (USB) - Booting from ISO - Kernel panic - Device types in /dev - Block devices - Character devices - Special character devices - /dev/null - /dev/zero - /dev/urandom - Basic package compilation from source ./configure - make - make install - Storage concepts - File storage - Block storage - Object storage - Partition typo - Master boot record (MBR) - GUID [globally unique identifier] Partition Table (GPT) - Filesystem in Userspace (FUSE) - Redundant Array of Independent (or Inexpensive) Disks (RAID) levels - Striping - Mirroring - Parity

Topic	Details
	- Listing hardware information • lspci • lsusb • dmidecode
Given a scenario, manage files and directories.	- File editing • sed • awk • printf • nano • vi(m) - File compression, archiving, and backup • gzip • bzip2 • zip • tar • xz • cpio • dd - File metadata • stat • file - Soft and hard links - Copying files between systems • rsync • scp • nc - File and directory operations • mv

Topic	Details
	- cp - mkdir - rmdir - ls - pwd - rm - cd . .. ~ - tree - cat - touch
Given a scenario, configure and manage storage using the appropriate tools.	- Disk partitioning - Commands - fdisk - parted - partprobe - Mounting local and remote devices - systemd.mount /etc/fstab - mount - Linux Unified Key Setup (LUKS) - External devices - Filesystem management - XFS tools - Ext4 tools - Btrfs tools - Monitoring storage space and disk usage - df

Topic	Details

	• du
	
	- Creating and modifying volumes using Logical Volume Manager (LVM)
	
	• Commands
	  - pvs
	  - vgs
	  - lvs
	  - lvchange
	  - lvcreate
	  - vgcreate
	  - lvresize
	  - pvcreate
	  - vgextend
	
	- Inspecting RAID implementations
	
	• mdadm
	• /proc/mdstat
	
	- Storage area network (SAN)/network-attached storage (NAS)
	
	• multipathd
	• Network filesystems
	  - Network File System (NFS)
	  - Server Message Block (SMB)/Common Internet File System (CIFS)
	
	- Storage hardware
	
	• lsscsi
	• lsblk
	• blkid
	• fcstat

Given a scenario, configure and use the appropriate processes and services.	- System services
	
	• systemctl
	  - stop
	  - start

Topic	Details

	- restart
	- status
	- enable
	- disable
	- mask
	
	- Scheduling services
	
	• cron
	• crontab
	• at
	
	- Process management
	
	• Kill signals
	  - SIGTERM
	  - SIGKILL
	  - SIGHUP
	• Listing processes and open files
	  - top
	  - ps
	  - lsof
	  - htop
	• Setting priorities
	  - nice
	  - renice
	• Process states
	  - Zombie
	  - Sleeping
	  - Running
	  - Stopped
	• Job control
	  - bg
	  - fg
	  - jobs
	  - Ctrl+Z
	  - Ctrl+C
	  - Ctrl+D
	• pgrep

Topic	Details
	• pkill • pidof

Given a scenario, use the appropriate networking tools or configuration files.	- Interface management
	
	• iproute2 tools
	  - ip
	  - ss
	• NetworkManager
	  - nmcli
	• net-tools
	  - ifconfig
	  - ifcfg
	  - hostname
	  - arp
	  - route
	• /etc/sysconfig/network-scripts/
	- Name resolution
	
	• nsswitch
	• /etc/resolv.conf
	• systemd
	  - hostnamectl
	  - resolvectl
	• Bind-utils
	  - dig
	  - nslookup
	  - host
	• WHOIS
	- Network monitoring
	
	• tcpdump
	• wireshark/tshark
	• netstat
	• traceroute
	• ping
	• mtr

Topic	Details
	- Remote networking tools • Secure Shell (SSH) • cURL • wget • nc • rsync • Secure Copy Protocol (SCP) • SSH File Transfer Protocol (SFTP)
Given a scenario, build and install software.	- Package management • DNF • YUM • APT • RPM • dpkg • ZYpp - Sandboxed applications • snapd • Flatpak • AppImage - System updates • Kernel updates • Package updates

• Given a scenario, manage software configurations.	• - Updating configuration files
	• Procedures
	  - Restart service
	  - Reload service
	• .rpmnew
	• .rpmsave
	• Repository configuration files
	  - /etc/apt.conf

Topic	Details
	- /etc/yum.conf - /etc/dnf/dnf.conf - /etc/yum.repo.d - /etc/apt/sources.list.d
	• - Configure kernel options
	• Parameters - sysctl - /etc/sysctl.conf
	• Modules - lsmod - imsmod - rmmod - insmod - modprobe - modinfo
	• - Configure common system services
	• SSH
	• Network Time Protocol (NTP)
	• Syslog
	• chrony
	• - Localization
	• timedatectl
	• localectl
Security - 21%	
Summarize the purpose and use of security best practices in a Linux environment.	- Managing public key infrastructure (PKI) certificates • Public key • Private key • Self-signed certificate • Digital signature • Wildcard certificate • Hashing • Certificate authorities

Topic	Details
	- Certificate use cases • Secure Sockets Layer (SSL)/Transport Layer Security (TLS) • Certificate authentication • Encryption - Authentication • Tokens • Multifactor authentication (MFA) • Pluggable authentication modules (PAM) • System Security Services Daemon (SSSD) • Lightweight Directory Access Protocol (LDAP) • Single sign-on (SSO) - Linux hardening • Security scanning • Secure boot - UEFI • System logging configurations • Setting default umask • Disabling/removing insecure services • Enforcing password strength • Removing unused packages • Tuning kernel parameters • Securing service accounts • Configuring the host firewall

Given a scenario, implement identity management.	- Account creation and deletion
	
	• Utilities
	  - useradd
	  - groupadd
	  - userdel
	  - groupdel
	  - usermod

Topic	Details
	- groupmod - id - who - w • Default shell • Configuration files - /etc/passwd - /etc/group - /etc/shadow - /etc/profile - /etc/skel - .bash_profile - .bashrc - Account management • passwd • chage • pam_tally2 • faillock • /etc/login.defs
Given a scenario, implement and configure firewalls.	- Firewall use cases • Open and close ports • Check current configuration • Enable/disable Internet protocol (IP) forwarding - Common firewall technologies • firewalld • iptables • nftables • Uncomplicated firewall (UFW) - Key firewall features • Zones • Services

Topic	Details
	- Stateful - Stateless
Given a scenario, configure and execute remote connectivity for system management.	- SSH • Configuration files - /etc/ssh/sshd_config - /etc/ssh/ssh_config - ~/.ssh/known_hosts - ~/.ssh/authorized_keys - /etc/ssh/sshd_config - /etc/ssh/ssh_config - ~/.ssh/config • Commands - ssh-keygen - ssh-copy-id - ssh-add • Tunneling - X11 forwarding - Port forwarding - Dynamic forwarding - Executing commands as another user • /etc/sudoers • PolicyKit rules • Commands - sudo - visudo - su – - pkexec
Given a scenario, apply the appropriate access controls.	- File permissions • Access control list (ACL) • Set user ID (SUID) • Set group ID (SGID) • Sticky bit - Security-enhanced Linux (SELinux)

Topic	Details

	• Context permissions
	• Labels
	  - Autorelabel
	• System booleans
	• States
	  - Enforcing
	  - Permissive
	  - Disabled
	• Policy types
	  - Targeted
	  - Minimum
	
	- AppArmor
	
	• Application permissions
	
	- Command-line utilities
	
	• chown
	• umask
	• chmod
	• getfacl
	• setfacl
	• ls
	• setenforce
	• getenforce
	• chattr
	• lsattr
	• chgrp
	• setsebool
	• getsebool
	• chcon
	• restorecon
	• semanage
	• audit2allow

Topic	Details
	Scripting, Containers, and Automation - 19%

Given a scenario, create simple shell scripts to automate common tasks.	- Shell script elements
	
	• Loops
	  - while
	  - for
	  - until
	• Conditionals
	  - if
	  - switch/case
	• Shell parameter expansion
	  - Globbing
	  - Brace expansions
	• Comparisons
	  - Arithmetic
	  - String
	  - Boolean
	• Variables
	• Search and replace
	• Regular expressions
	• Standard stream redirection
	  - |
	  - ||
	  - >
	  - >>
	  - <
	  - <<
	  - &
	  - &&
	  - Redirecting
	  - stderr
	  - stdout
	• Here documents
	• Exit codes
	• Shell built-in commands
	  - read
	  - echo

Topic	Details

	- source
	
	- Common script utilities
	
	- awk
	- sed
	- find
	- xargs
	- grep
	- egrep
	- tee
	- wc
	- cut
	- tr
	    - head
	    - tail
	
	- Environment variables
	
	- $PATH
	- $SHELL
	- $?
	
	- Relative and absolute paths

Given a scenario, perform basic container operations.	- Container management - Starting/stopping - Inspecting - Listing - Deploying existing images - Connecting to containers - Logging - Exposing ports - Container image operations - build

Topic	Details
	- push - pull - list - rmi
Given a scenario, perform basic version control using Git.	- clone - push - pull - commit - add - checkout - branch - tag - gitignore

Summarize common infrastructure as code technologies.	- File formats
	
	  • YAML Ain't Markup Language (YAML)
	  • JavaScript Object Notation (JSON)
	
	- Utilities
	
	  • Ansible
	  • Puppet
	  • Chef
	  • SaltStack
	  • Terraform
	
	- Continuous integration/continuous deployment (CI/CD)
	
	  • Use cases
	
	- Advanced Git topics
	
	  • merge
	  • rebase
	  • Pull requests

Summarize container, cloud, and	- Kubernetes benefits and application use cases

Topic	Details

orchestration concepts.	- Pods
	- Sidecars
	- Ambassador containers
	- Single-node, multicontainer use cases
	
	   • Compose
	- Container persistent storage
	- Container networks
	
	   • Overlay networks
	   • Bridging
	   • Network address translation (NAT)
	   • Host
	- Service mesh
	- Bootstrapping
	
	   • Cloud-init
	- Container registries

	Troubleshooting - 28%

Given a scenario, analyze and troubleshoot storage issues.	- High latency
	
	   • Input/output (I/O) wait
	- Low throughput
	- Input/output operations per second (IOPS) scenarios
	
	   • Low IOPS
	- Capacity issues
	
	   • Low disk space
	   • Inode exhaustion
	- Filesystem issues
	
	   • Corruption

Topic	Details
	• Mismatch - I/O scheduler - Device issues • Non-volatile memory express (NVMe) • Solid-state drive (SSD) • SSD trim • RAID • LVM • I/O errors - Mount option problems
Given a scenario, analyze and troubleshoot network resource issues.	- Network configuration issues • Subnet • Routing - Firewall issues - Interface errors • Dropped packets • Collisions • Link status - Bandwidth limitations • High latency - Name resolution issues • Domain Name System (DNS) - Testing remote systems • Nmap • openssl s_client
Given a scenario, analyze and troubleshoot central	- Runaway processes - Zombie processes - High CPU utilization

Topic	Details
processing unit (CPU) and memory issues.	- High load average - High run queues - CPU times • steal • user • system • idle • iowait - CPU process priorities • nice • renice - Memory exhaustion • Free memory vs. file cache - Out of memory (OOM) • Memory leaks • Process killer - Swapping - Hardware • lscpu • lsmem • /proc/cpuinfo • /proc/meminfo
Given a scenario, analyze and troubleshoot user access and file permissions.	- User login issues - User file access issues • Group • Context • Permission • ACL • Attribute

Topic	Details
	• Policy/non-policy - Password issues - Privilege elevation - Quota issues

Given a scenario, use systemd to diagnose and resolve common problems with a Linux system.	- Unit files
	
	• Service
	  - Networking services
	  - ExecStart/ExecStop
	  - Before/after
	  - Type
	  - User
	  - Requires/wants
	• Timer
	  - OnCalendar
	  - OnBootSec
	  - Unit
	  - Time expressions
	• Mount
	  - Naming conventions
	  - What
	  - Where
	  - Type
	  - Options
	• Target
	  - Default
	  - Multiuser
	  - Network-online
	  - Graphical
	- Common problems
	
	• Name resolution failure
	• Application crash
	• Time-zone configuration
	• Boot issues
	• Journal issues
	• Services not starting on time

Broaden Your Knowledge with CompTIA XK0-005 Sample Questions:

Question: 1

PXE uses a _____ server to obtain network configuration information, such as an IP address and subnet address.

- a) DNS
- b) NTP
- c) DHCP
- d) SAMBA

Answer: c

Question: 2

Which option to the ls command displays all files, including hidden files?

- a) -l
- b) -a
- c) -d
- d) -s

Answer: b

Question: 3

While of the following is a valid sed command?

- a) ls -l | sed 's~root~null~g'
- b) ls -l | sed 's\root\null\g'
- c) ls -l | sed 's-root-null-g'
- d) ls -l | sed 's/root/null/g'

Answer: d

Question: 4

Which command can be used to control services?

- a) systemd
- b) system
- c) systemcfg
- d) systemctl

Answer: d

Question: 5

Which of the following commands allow you to display information about network packets?

(Choose two.)

a) tcpdump
b) wireshark
c) netstat
d) mtr

Answer: a, b

Question: 6

What commands are used when compiling a package from source code?

a) ./configure
b) ./compile
c) make install
d) make

Answer: a, c, d

Question: 7

In the vi editor, which insert mode navigation key opens a new line below the current line and enters the insert mode?

a) i
b) I
c) o
d) O

Answer: c

Question: 8

What is the third stage of the boot process?

a) BIOS
b) Kernel
c) Bootloader
d) System initialization

Answer: b

Question: 9

When a web server sends its public key, it includes a digital signature. This digital signature can be sent to a CA server, which is a trusted third-party system used to verify the digital signature. In some cases, the server itself provides the signature as a(n) _____certificate.

a) self-signed
b) independent
c) solo
d) invalid

Answer: a

Question: 10

According to the FHS, where is information related to kernel data and process data stored?

a) /tmp
b) /var
c) /usr/lib
d) /proc

Answer: d

Avail the Study Guide to Pass CompTIA XK0-005 Linux Plus Exam:

● Find out about the XK0-005 syllabus topics. Visiting the official site offers an idea about the exam structure and other important study resources. Going through the syllabus topics help to plan the exam in an organized manner.

● Once you are done exploring the **XK0-005 syllabus**, it is time to plan for studying and covering the syllabus topics from the core. Chalk out the best plan for yourself to cover each part of the syllabus in a hassle-free manner.

● A study schedule helps you to stay calm throughout your exam preparation. It should contain your materials and thoughts like study hours, number of topics for daily studying mentioned on it. The best bet to clear the exam is to follow your schedule rigorously.

- The candidate should not miss out on the scope to learn from the XK0-005 training. Joining the CompTIA provided training for XK0-005 exam helps a candidate to strengthen his practical knowledge base from the certification.
- Learning about the probable questions and gaining knowledge regarding the exam structure helps a lot. Go through the **XK0-005 sample questions** and boost your knowledge
- Make yourself a pro through online practicing the syllabus topics. XK0-005 practice tests would guide you on your strengths and weaknesses regarding the syllabus topics. Through rigorous practicing, you can improve the weaker sections too. Learn well about time management during exam and become confident gradually with practice tests.

Career Benefits:

- Passing the XK0-005 exam, helps a candidate to prosper highly in his career. Having the certification on the resume adds to the candidate's benefit and helps to get the best opportunities.

Here Is the Trusted Practice Test for the XK0-005 Certification

EduSum.Com is here with all the necessary details regarding the XK0-005 exam. We provide authentic practice tests for the XK0-005 exam. What do you gain from these practice tests? You get to experience the real exam-like questions made by industry experts and get a scope to improve your performance in the actual exam. Rely on EduSum.Com for rigorous, unlimited two-month attempts on the **XK0-005 practice tests**, and gradually build your confidence. Rigorous practice made many aspirants successful and made their journey easy towards grabbing the CompTIA Linux+.

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