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Introduction

This book provides practice questions for the CompTIA Linux+ certification Exam XK0-005. The questions are multiple choice, and the difficulty levels vary. The balance of questions closely mirrors the exam objective weighting in emphasis of certain technologies.

How to Get Linux+ Certified

Tests are administered by CompTIA's global testing partner, Pearson VUE. For more information on taking the exam, visit the CompTIA website at www.comptia.org. You can also visit Pearson VUE at www.pearsonvue.com.

How to Use This Book and the Interactive Online Learning Environment and Test Bank

This book is intended as a supplement to *CompTIA Linux+ Study Guide Exam XK0-005, 5th Edition*. Ideally, you already own that title and can use the practice questions in this book as you work through the objectives.

This book contains 1,000 questions related to technologies that have been identified by CompTIA as necessary for an individual to obtain Linux+ certification. If you have the requisite skills and experience, then you can attempt the questions within the book, looking up answers as needed. The book can also be used to identify areas where you may need to seek out additional experience and knowledge.

The online test bank at www.wiley.com/go/sybextestprep includes all the questions from the book. Take these practice exams just as if you were taking the actual exam (without any reference material). If you get more than 90 percent of the answers correct, you're ready to take the certification exams.



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Linux+ Certification Exam Objectives: (XK0-005)

Exam objectives can be found at www.comptia.org/certifications/linux.

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Chapter

1

System Management (Domain 1.0)



1. Which command is used to load a module and its dependencies automatically?
 - A. modprobe
 - B. lsmod
 - C. insmod
 - D. rmmod
2. Which option given at boot time within the GRUB2 boot entry configuration will boot the system into single-user mode?
 - A. single-user
 - B. su
 - C. single
 - D. root
3. What is the command to display the default target on a computer running systemd?
 - A. systemctl defaults
 - B. update-rc.d defaults
 - C. systemctl runlevel
 - D. systemctl get-default
4. Which command is used to obtain a list of USB devices?
 - A. usb-list
 - B. lsusb
 - C. ls-usb
 - D. ls --usb
5. Which command can be used to obtain a list of currently loaded kernel modules?
 - A. insmod
 - B. modlist
 - C. ls --modules
 - D. lsmod
6. When running with a Unified Extensible Firmware Interface (UEFI) system, to which partition will the EFI system partition typically be mounted?
 - A. /etc/efi
 - B. /efi
 - C. /sys/efi
 - D. /boot/efi

7. Assuming that a USB disk contains a single partition and is made available on `/dev/sdb`, which command mounts the disk in `/media/usb`?
 - A. `mount /dev/sdb1 /media/usb`
 - B. `usbconnect /dev/sdb0 /media/usb`
 - C. `mount /dev/sdb0 /media/usb`
 - D. `usbmount /dev/sdb1 /media/usb`
8. What is one reason a device driver does not appear in the output of `lsmod`, even though the device is loaded and working properly?
 - A. The use of `systemd` means drivers are not required for most devices.
 - B. The use of an `initrd.img` means support is enabled by default.
 - C. The system does not need a driver for the device.
 - D. Support for the device has been compiled directly into the kernel.
9. Which option to `rmmmod` will cause the module to wait until it's no longer in use to unload the module?
 - A. `-test`
 - B. `-b`
 - C. `-w`
 - D. `-unload`
10. Which command will output a new GRUB configuration file and send the output to the correct location for booting?
 - A. `update-grub`
 - B. `update-grub boot > /boot/grub.cfg`
 - C. `grub-rc.d`
 - D. `grub-boot`
11. What is the maximum number of primary partitions available on an MBR partitioning system?
 - A. Two
 - B. Four
 - C. One
 - D. Five
12. When working with disk partitions through a tool like `fdisk`, you see the type `0x82`. Which type of partition is this?
 - A. Linux
 - B. Linux swap
 - C. NTFS
 - D. FAT

13. Which file should you edit when using GRUB2 in order to define or set options like the timeout?
 - A. `/etc/default/grub`
 - B. `/etc/grub/boot`
 - C. `/etc/boot/grub.d`
 - D. `/grub.d/boot`
14. Which option for the `grub2-mkconfig` command sends output to a file instead of STDOUT?
 - A. `-stdout`
 - B. `--fileout`
 - C. `-o`
 - D. `-f`
15. Of the following choices, which size would be most appropriate for the `/boot` partition of a Linux system?
 - A. At least 1 GB.
 - B. Between 100 MB and 200 MB.
 - C. `/boot` should not be partitioned separately.
 - D. Less than 5 MB.
16. Which of the following commands initializes a physical disk partition for use with LVM?
 - A. `lvmcreate`
 - B. `pvcreate`
 - C. `vgextend`
 - D. `pvs`
17. Which of the following commands installs GRUB into the MBR of the second SATA disk?
 - A. `grub2-install /dev/hdb2`
 - B. `grub2-install /dev/sda2`
 - C. `grub2-config /dev/sda`
 - D. `grub2-install /dev/sdb`
18. Which command is used to create a logical volume with LVM?
 - A. `pvcreate`
 - B. `lvmcreate`
 - C. `lvcreate`
 - D. `volcreate`
19. What is the logical order for creation of an LVM logical volume?
 - A. Physical volume creation, volume group creation, logical volume creation
 - B. Physical volume creation, logical volume creation, volume group creation
 - C. Logical volume creation, physical volume creation, volume group creation
 - D. LVM creation, format, partition

20. Which command should be run after making a change to the `/etc/default/grub` file?
- A. `grub`
 - B. `grub-mkconfig`
 - C. `grub-inst`
 - D. `reboot`
21. Which command is used to change details of a logical volume?
- A. `lvmcreate`
 - B. `pvcreate`
 - C. `lvchange`
 - D. `lvmscan`
22. A hard drive is reported as `hd(0,0)` by the GRUB Legacy configuration file. To which of the following disks and partitions does this correspond?
- A. `/dev/hdb2`
 - B. `/dev/hda0`
 - C. `/dev/disk1`
 - D. `/dev/sda1`
23. Which of the following commands installs GRUB into the master boot record (MBR) of the first SATA drive?
- A. `grub-install /dev/hda`
 - B. `grub-install /dev/sda`
 - C. `grub-install /dev/hd0,0`
 - D. `grub -i /dev/hda`
24. Which option given to a `yum` command will install a given package?
- A. `update`
 - B. `configure`
 - C. `install`
 - D. `get`
25. After a new hard drive is inserted into the system, what is the correct order to make the drive ready for use within Linux?
- A. Use `fdisk` to create partitions, and then mount the partitions.
 - B. Mount the partitions.
 - C. Use `fdisk` to create partitions and mount `-a` to mount all the newly created partitions.
 - D. Use `fdisk` to create partitions, then format the partitions using a command such as `mkfs`, and then mount the partitions.

26. When working with an rpm package file and using rpm2cpio, by default the output is sent to which location?
- A. STDOUT
 - B. The file cpio.out
 - C. The file a.out
 - D. The file /tmp/cpio.out
27. Which of the following describes a primary difference between ext2 and ext3 filesystems?
- A. ext3 was primarily a bug-fix update to ext2.
 - B. ext3 includes journaling for the filesystem.
 - C. ext3 completely changed the tools needed for management of the disks.
 - D. ext3 has no significant differences.
28. According to the Filesystem Hierarchy Standard (FHS), what is the correct location for add-on application software packages?
- A. /etc
 - B. /var
 - C. /tmp
 - D. /opt
29. Which option to the mount command will mount all filesystems that are currently available in /etc/fstab?
- A. -f
 - B. -d
 - C. -a
 - D. -m
30. Which option of the systemctl command will change a service so that it runs on the next boot of the system?
- A. enable
 - B. startonboot
 - C. loadonboot
 - D. start
31. Which option to xfs_metadump displays a progress indicator?
- A. -g
 - B. -p
 - C. -f
 - D. -v

32. The system is running out of disk space within the home directory partition, and quotas have not been enabled. Which command can you use to determine the directories that might contain large files?
- A. `du`
 - B. `df`
 - C. `ls`
 - D. `locate`
33. Which file contains information about the filesystems to mount, their partitions, and the options that should be used to mount them?
- A. `/etc/filesystems`
 - B. `/etc/mounts`
 - C. `/etc/fstab`
 - D. `systemd.mount`
34. According to the FHS, what is the proper mount point for removable media?
- A. `/etc`
 - B. `/srv`
 - C. `/tmp`
 - D. `/media`
35. How many SCSI devices are supported per bus?
- A. 7 to 15
 - B. 2 to 4
 - C. 12
 - D. 4
36. Which option to `umount` will cause the command to attempt to remount the filesystem in read-only mode if the unmounting process fails?
- A. `-o`
 - B. `-r`
 - C. `-f`
 - D. `-v`
37. Which of the following represents the correct format for the `/etc/fstab` file?
- A. `<directory> <device> <type> <options>`
 - B. `<device> <type> <options>`
 - C. `<device> <type> <options> <directory> <dump> <fsck>`
 - D. `<device> <directory> <type> <options> <dump> <fsck>`

38. Which of the following commands is used to identify the UUID for partitions?
- A. blkid
 - B. partprobe
 - C. find
 - D. cat
39. The `xfs_info` command is functionally equivalent to which command and option?
- A. `xfs_test -n`
 - B. `xfs_list`
 - C. `tunexfs -i`
 - D. `xfs_growfs -n`
40. Which of the following commands will create a `btrfs` filesystem on the first SATA drive?
- A. `mkfs /dev/sda1`
 - B. `mkfs.btrfs /dev/sda`
 - C. `mkfs.btrfs /dev/sda1`
 - D. `mkfs -b /dev/sda`
41. Which command and option can be used to determine whether a given service is currently loaded?
- A. `systemctl --ls`
 - B. `telinit`
 - C. `systemctl status`
 - D. `sysctl -a`
42. Which command can be used to change the partitioning scheme for a disk, such as to change the size of existing partitions without deleting them?
- A. `resize2fs`
 - B. `parted`
 - C. `mkfs`
 - D. `rfdisk`
43. Which of the following commands will mount a USB device at `/dev/sdb1` into the `/mnt/usb` directory, assuming a VFAT filesystem for the USB drive?
- A. `mount -t vfat /dev/sdb1 /mnt`
 - B. `usbmount /dev/sdb1 /mnt/usb`
 - C. `mount -t vfat /dev/sdb1 /mnt/usb`
 - D. `mount -t usb /dev/sdb1 /mnt/usb`

44. Which option within `gdisk` will change the partition name?
- A. `n`
 - B. `b`
 - C. `v`
 - D. `c`
45. Which command on a `systemd`-controlled system would place the system into single-user mode?
- A. `systemctl stop`
 - B. `systemctl isolate rescue.target`
 - C. `systemctl single-user`
 - D. `systemctl runlevel one`
46. Which options to `fsck` can be used to check all filesystems listed in `/etc/fstab` while excluding the root partition?
- A. `-NR`
 - B. `-AR`
 - C. `-X`
 - D. `-C`
47. Which option in `/etc/fstab` sets the order in which the device is checked at boot time?
- A. `options`
 - B. `dump`
 - C. `fsck`
 - D. `checkorder`
48. Which file is used to indicate the local time zone on a Linux server?
- A. `/etc/timez`
 - B. `/etc/timezoneconfig`
 - C. `/etc/timezone`
 - D. `/etc/localtz`
49. Within which directory will you find files related to the time zone for various regions?
- A. `/etc/timezoneinfo`
 - B. `/etc/zoneinfo`
 - C. `/var/zoneinfo`
 - D. `/usr/share/zoneinfo`

50. Which option best describes the following, gathered with the `ls -la` command?
- ```
lrwxrwxrwx. 1 root root 35 Jul 8 2014
.fetchmailrc -> .configs/fetchmail/.fetchmailrc
```
- A. It is a file called `.fetchmailrc` that is linked using a symbolic link.
  - B. It is a file called `.configs/fetchmail/.fetchmailrc` that is owned by `lrwxrwxrwx`.
  - C. It is a directory called `.fetchmailrc` that is owned by user `Jul`.
  - D. It is a local directory called `.configs/fetchmail/.fetchmailrc`.
51. Which environment variable controls the format of dates and times, such as a 12-hour or 24-hour formatted clock?
- A. `LOCALE_DATE`
  - B. `DATE_FORMAT`
  - C. `LC_TIME`
  - D. `LC_DATE`
52. Which of the following encodings provides a multibyte representation of characters?
- A. `ISO-8859`
  - B. `UTF-8`
  - C. `ISO-L`
  - D. `UFTMulti`
53. Which command can be used to view the available time zones on a system?
- A. `tzd`
  - B. `/etc/locale`
  - C. `timedatectl`
  - D. `tzsel`
54. Which option to `lspci` is used to display both numeric codes and device names?
- A. `-numdev`
  - B. `-n`
  - C. `-nn`
  - D. `-devnum`
55. Which of the following values for the `LANG` variable will configure the system to bypass locale translations where possible?
- A. `LANG=COMPAT`
  - B. `LANG=NONE`
  - C. `LANG=C`
  - D. `LANG=END`

56. If you need to temporarily reconfigure all locale variables and settings for a given session, which environment variable can be used?
- A. LC\_LIST
  - B. LC\_GLOBAL
  - C. LC\_ALL
  - D. ALL\_LOCALE
57. Which of the following commands will set the systemwide time zone to 'America/Los\_Angeles'?
- A. `ln -sf /usr/share/zoneinfo/America/Los_Angeles /etc/localtime`
  - B. `ln -sf America/Los_Angeles ; /etc/localtime`
  - C. `ln -sd /etc/localtime /usr/share/timezone/America/Los_Angeles`
  - D. `ln -sf /etc/localtime /usr/share/zoneinfo/America/Los_Angeles`
58. Which locale-related variable is used for currency-related localization?
- A. LC\_MONE
  - B. LC\_CURRENCY
  - C. LC\_MONETARY
  - D. LC\_CURR
59. Which command is used to query and work with the hardware clock on the system?
- A. hwc
  - B. ntpdate
  - C. systime
  - D. hwclock
60. Which option to the date command can be used to set the date and time?
- A. `date -f`
  - B. `date -t`
  - C. `date --change`
  - D. `date -s`
61. Which function of the hwclock command will set the hardware or BIOS clock to the current system time?
- A. `-w`
  - B. `-s`
  - C. `-a`
  - D. `-m`

62. Which of the following commands sets the hardware or BIOS clock to UTC based on the current system time?
- A. `hwclock --systohc --utc`
  - B. `hwclock --systohc --localtime`
  - C. `hwclock --systohc`
  - D. `hwclock --systoutc`
63. Which of the following commands shows the current default route without performing DNS lookups on the IP address(es) involved?
- A. `netstat -rn`
  - B. `netstat -n`
  - C. `netstat -r`
  - D. `netstat -f`
64. A Serial ATA (SATA) disk will use which of the following identifiers?
- A. `/dev/hdX`
  - B. `/dev/sataX`
  - C. `/dev/sdX`
  - D. `/disk/sataX`
65. Which of the following commands adds a default gateway of 192.168.1.1 for interface `eth0`?
- A. `route add default gateway 192.168.1.1 eth0`
  - B. `eth0 --dg 192.168.1.1`
  - C. `route add default gw 192.168.1.1 eth0`
  - D. `route define eth0 192.168.1.1`
66. Which option for the `host` command will query for the authoritative name servers for a given domain?
- A. `-t ns`
  - B. `-t all`
  - C. `-ns`
  - D. `-named`
67. Which option for the `ping` command enables you to choose the interface from which the ICMP packets will be generated?
- A. `-i`
  - B. `-I`
  - C. `-t`
  - D. `-a`

68. Which of the following commands queries for the mail servers for the domain `example.com`?
- A. `dig example.com mx`
  - B. `dig example.com`
  - C. `host -t smtp example.com`
  - D. `dig example.com smtp`
69. Which of the following addresses represents the localhost in IPv6, such as you might find in `/etc/hosts`?
- A. `0:1`
  - B. `::1`
  - C. `127:0:1`
  - D. `:127:0:0:1`
70. Which command can be used to listen for netlink messages on a network?
- A. `ip monitor`
  - B. `netlink -a`
  - C. `ip netlink`
  - D. `route`
71. Which of the following configuration lines in `/etc/nsswitch.conf` causes a lookup for group information to first use local files and then use LDAP?
- A. `group: files ldap`
  - B. `lookup: group [local ldap]`
  - C. `group: [local ldap]`
  - D. `group: localfiles ldap`
72. Which of the following `dig` commands sends the query for `example.com` directly to the server at `192.168.2.5` rather than to a locally configured resolver?
- A. `dig example.com @192.168.2.5`
  - B. `dig -t 192.168.2.5 example.com`
  - C. `dig -s 192.168.2.5 example.com`
  - D. `dig server=192.168.2.5 example.com`
73. Which of the following commands will enumerate the hosts database?
- A. `getent hosts`
  - B. `gethosts`
  - C. `nslookup`
  - D. `host`