

Linux II - Term Test II 17W**Multiple Choice**

Identify the choice that best completes the statement or answers the question.

- 1 Which of the following parts of the X Windows architecture is responsible for drawing title bars?
A. Desktop manager B. Title manager C. Process manager D. Window manager E. X Windows clients
- 2 Which of the following specifies which services will start at boot?
A. sysinit.target B. multi-user.target C. graphical.target
D. basic.target E. default.target
- 3 `logind` is correctly referred to as a _____ program.
A. daemon B. demon C. plugin D. authorization E. utility
- 4 Which service is responsible for assigning persistent device names?
A. systemd-generators B. user-generators C. rhel-loadmodules
D. ntp-units E. systemd-udev
- 5 _____ are always part of a _____.
A. Physical volumes, logical volume. B. Physical volumes, volume group.
C. Logical volumes, physical volume. D. Volume groups, physical volume.
E. Logical volumes, volume group.
- 6 Which of the following commands will immediately disconnect all users currently connected to the server using `ssh`?
A. shutdown B. shutdown sshd C. shutdown now D. shutdown ssh
E. shutdown connections
- 7 Which of the following is a valid `mount` command?
A. mount / /dev/cl-root B. mount /mnt/sda1 /dev/cl/root C. mount /dev/sda1 /mnt D. mount /dev/cl-root / E. mount /mnt/sda1 /mnt
- 8 What effect does the command `tune2fs -j /dev/sdk4` have?
A. Adds a journal node to the filesystem on `/dev/sdk4`. B. Changes an `ext2` filesystem into an `ext4` filesystem.
C. Changes an `ext3` filesystem into an `ext2` filesystem. D. Changes the journal size of the filesystem on `/dev/sdk4`
E. Removes a journal entry from the filesystem on `/dev/sdk4`

- 9 What file is `/boot/grub2/grub.cfg` in the command line `grub2-mkconfig -o /boot/grub2/grub.cfg`?
- A. Configuration file for `grub2-install` B. Configuration file for `grub2-mkconfig` C. Source file D. Destination file E. None of these.
- 10 What does the command `lvcreate -L2G -s -n shadow /dev/cl/root` do?
- A. Creates a new logical volume named `root` in the `cl` volume group. B. Creates a snapshot of the logical volume `root`. C. Creates a snapshot of the logical volume `shadow`. D. Creates a new logical volume named `shadow` in the `cl` volume group. E. None of these.
- 11 What is the path to the configuration file for the package manager in CentOS 7?
- A. `/etc/yum.conf` B. `/etc/ld.so.conf` C. `/etc/logrotate.conf` D. `/etc/mdadm.conf` E. `/etc/rsyslog.conf`
- 12 Examine the following output from the `mount` command:
- ```
sysfs on /sys type sysfs (rw,nosuid,nodev,noexec,relatime)
proc on /proc type proc (rw,nosuid,nodev,noexec,relatime)
devtmpfs on /dev type devtmpfs
(rw,nosuid,size=8078260k,nr_inodes=2019565,mode=755)
securityfs on /sys/kernel/security type securityfs
(rw,nosuid,nodev,noexec,relatime)
```
- Which line refers to a physical block device?
- A. No line.    B. Second line.    C. First line.    D. Third line.    E. Fourth line.
- 13 The extended regular expression pattern `fanta*stic` matches which of the following?
- A. `fanta drink peppermint stic`    B. `fantafantastic`    C. `stic`    D. `fantasy elastic`    E. `fantaaaaaaaaaastic`
- 14 Which command could you use to match only lines that begin with `puppy`?
- A. `grep \^puppy`    B. `grep $puppy`    C. `grep ^puppy$`    D. `grep ^puppy`    E. `grep \$puppy`
- 15 Which command could you use to see how much swap space is currently being used?
- A. `du`    B. `mem`    C. `swap`    D. `df`    E. `free`
- 16 The basic regular expression pattern `^dogs\?$` matches which of the following?
- A. `dogssssss`    B. `dog`    C. `dogz`    D. `dogsdos`    E. `dog?`

- 17 Which of the following filesystems can partially recover corrupt backup files?  
A. ext2    B. ext4    C. BTRFS    D. XFS    E. ext3
- 18 Which of the following RAID levels would maximize read/write performance with four disks?  
A. RAID 10    B. RAID 0    C. RAID 1    D. RAID 4    E. RAID 5
- 19 Which command can you use to add a group?  
A. /etc/group    B. addgroup    C. groupadd    D. usermod    E. gpasswd
- 20 What command can you use to become the root user?  
A. machinectl enable    B. elevate    C. chown root    D. su root    E. su
- 21 Which of the following commands must be used before a new kernel can be loaded?  
A. modprobe    B. mount    C. mkfs    D. fdisk    E. shutdown
- 22 Which of the following specifies which services are started by `systemd` at the equivalent of "runlevel 3"?  
A. basic.target    B. graphical.target    C. multi-user.target  
D. sysinit.target    E. default.target
- 23 Which of these files, if created, prevents login by non-root users?  
A. /sbin/nologin    B. /etc/issue    C. /etc/motd    D. /etc/nologin  
E. /etc/passwd
- 24 Examine the following output from the `mount` command:
- ```
/dev/sda5 on / type xfs (rw,relatime,attr2,inode64,noquota)
systemd-1 on /proc/sys/fs/binfmt_misc type autofs
(rw,relatime,fd=30,pgrp=1,timeout=300,minproto=5,maxproto=5,direct)
debugfs on /sys/kernel/debug type debugfs (rw,relatime)
mqueue on /dev/mqueue type mqueue (rw,relatime)
hugetlbfs on /dev/hugepages type hugetlbfs (rw,relatime)
sunrpc on /var/lib/nfs/rpc_pipefs type rpc_pipefs (rw,relatime)
```
- Where is the root filesystem stored?
A. /dev/sda5 B. /proc/sys/fs/binfmt_misc C. / D. /dev/mqueue
E. autofs
- 25 Which command should you use to install and remove packages in CentOS 7?
A. aptitude B. apt-get C. tar D. yum E. wget

- 26 Which of the following commands can destroy a mounted filesystem?
A. vgremove cl B. lvreduce -L -1G /dev/cl/home C. lvcreate -L 1G -nhome cl D. vgreduce cl /dev/sdr5 E. lvextend -L +1G /dev/cl/home
- 27 What does the command `ip r a default via 192.168.0.1` do?
A. This command is invalid and will return an error. B. Sets the gateway of last resort to 192.168.0.1 C. Defines a static route for packets destined for the local area network. D. Assigns the IP address 192.168.0.1 to the first available network interface. E. Assigns the IP address 192.168.0.1 to the network interface.
- 28 Which of the following parts of the X Windows architecture interacts directly with graphics hardware?
A. X Windows server B. Desktop manager C. Dock D. X Windows client
E. Window manager
- 29 Which directory contains the default kernel used by CentOS 7?
A. /sys B. /lib C. /proc D. /boot E. /usr/sbin
- 30 Which of the following commands is valid?
A. grub2-install /dev/md127 B. grub2-install /dev/cl/root
C. grub2-install /dev/sda1 D. grub2-install /dev/sdr E. grub2-install /boot
- 31 If we wanted to start a service called `bluetooth-spamd` after the "bluetooth" target is applied, we could place a link to the service in which directory?
A. /etc/systemd/bluetooth-spamd.wants/
B. /etc/systemd/bluetooth.target.wants/
C. /etc/systemd/system/bluetooth.wants/
D. /etc/systemd/system/bluetooth.target.wants/
E. /etc/systemd/bluetooth.wants/
- 32 Which of the following programs is responsible for displaying a graphical login screen?
A. startx B. xev C. gnome D. gdm E. xhost
- 33 Examine the output of the `fsck` command, below:
- ```
fsck from util-linux 2.23.2
e2fsck 1.42.9 (28-Dec-2013)
/dev/sdel: clean, 11/1310720 files, 93521/5242624 blocks
```
- The first partition of the fifth hard drive is formatted with what filesystem?  
A. FAT32    B. ext4    C. XFS    D. HFS    E. BTRFS

- 34 What does ``/mnt/tmp`` represent in the command ``xfsrestore -f /mnt/tape/backup /mnt/tmp`` ?  
A. XFS filesystem    B. Ramdisk    C. Scratchpad area    D. Logical volume  
E. Source directory
- 35 Which of the following filesystems would you choose for a RAID array with 33 terabytes of usable space? Assume the RAID array has been installed in a production server.  
A. ext3    B. BTRFS    C. ext4    D. ext2    E. NTFS
- 36 Where is the primary configuration file for systemd located?  
A. `/etc/systemd.conf`    B. `/usr/lib/systemd.conf`  
C. `/etc/systemd/system.conf`    D. `/usr/lib/systemd/system.conf`  
E. `~/.system.conf`
- 37 Which of the following commands will tell you how long a Linux system took to boot?  
A. `systemd-cgls`    B. `systemd-cgtop`    C. `systemd-analyze`    D. `systemctl`  
E. `journalctl`
- 38 Which file would you edit in order to configure GRUB2 to wait one second before starting the default kernel?  
A. `/etc/grub2.cfg`    B. `/etc/grub.d/00_header`    C. `/boot/grub2/grub.cfg`  
D. `/etc/grub.d/30_os-prober`    E. `/etc/default/grub`
- 39 Why is it necessary to unmount all drives when Linux shuts down?  
A. Prevents data loss.    B. Ready drives for filesystem checks.  
C. Prevent logging (for security reasons).    D. Prepare drives for backup.  
E. Avoid race conditions.
- 40 What does ``/mnt/tape/backup`` represent in the command ``xfsdump -L research -M tapel -f /mnt/tape/backup /`` ?  
A. The source directory.    B. The source filesystem.    C. A backup directory.  
D. A logical volume.    E. A backup file.
- 41 What does the parameter ``BOOTPROTO=none`` imply in a network configuration file?  
A. It means that this network interface uses DHCP.    B. It means that this network interface will be enabled at boot.  
C. It means that this network interface will be disabled at boot.    D. This parameter has no special meaning.  
E. It means that this network interface has a static IP address.
- 42 ``networkd`` is a part of which Linux subsystem?  
A. systemd    B. networking service    C. DHCP client    D. udev    E. /etc

- 43 Which of the following strings does the basic regular expression `c[[:lower:]][[:lower:]]\?` match?  
A. chip    B. cow?    C. cuR    D. cat    E. clower
- 44 Which of the following features does XFS support?  
A. Copy-on-write    B. B-tree    C. 64-bit    D. No journal  
E. Deduplication
- 45 What type of hardware device does the file ``/dev/sdp5`` represent?  
A. Logical volume    B. Physical volume    C. Partition    D. RAID array  
E. Hard drive
- 46 It is not recommended to create a filesystem on a:  
A. Logical Volume    B. RAID array    C. Removable device    D. Hard drive  
E. Hard drive partition
- 47 Which of the following specifies which services are the first to start at boot time?  
A. `default.target`    B. `sysinit.target`    C. `multi-user.target`  
D. `graphical.target`    E. `basic.target`
- 48 What type of network device is the device `enp5s0` ?  
A. Serial interface    B. Integrated onboard device    C. Wireless 802.11x device  
D. 3G wireless device    E. PCI Ethernet card
- 49 Which of these utilities will display the message "This account is currently not available."  
A. `nologin`    B. `passwd`    C. `motd`    D. `userdel`    E. `issue`
- 50 A 600 GB hard drive has three partitions, each one 200 GB in size. Which of the following statements is true?  
A. `fdisk` must be used to make the second partition larger.    B. To make the second partition larger, all partitions must be deleted first.  
C. To make the second partition larger, the third partition must be made smaller.    D. To make the second partition larger, a new disk must be added to the RAID array.    E. To make the second partition larger, a new physical volume must be added to the volume group.

**Linux II - Term Test II 17W**  
**Answer Section****MULTIPLE CHOICE**

|    |        |        |
|----|--------|--------|
| 1  | ANS: D | PTS: 1 |
| 2  | ANS: E | PTS: 1 |
| 3  | ANS: A | PTS: 1 |
| 4  | ANS: E | PTS: 1 |
| 5  | ANS: E | PTS: 1 |
| 6  | ANS: C | PTS: 1 |
| 7  | ANS: C | PTS: 1 |
| 8  | ANS: A | PTS: 1 |
| 9  | ANS: D | PTS: 1 |
| 10 | ANS: B | PTS: 1 |
| 11 | ANS: A | PTS: 1 |
| 12 | ANS: A | PTS: 1 |
| 13 | ANS: E | PTS: 1 |
| 14 | ANS: D | PTS: 1 |
| 15 | ANS: E | PTS: 1 |
| 16 | ANS: B | PTS: 1 |
| 17 | ANS: D | PTS: 1 |
| 18 | ANS: B | PTS: 1 |
| 19 | ANS: C | PTS: 1 |
| 20 | ANS: E | PTS: 1 |
| 21 | ANS: E | PTS: 1 |
| 22 | ANS: C | PTS: 1 |
| 23 | ANS: D | PTS: 1 |
| 24 | ANS: A | PTS: 1 |
| 25 | ANS: D | PTS: 1 |
| 26 | ANS: B | PTS: 1 |
| 27 | ANS: B | PTS: 1 |
| 28 | ANS: A | PTS: 1 |
| 29 | ANS: D | PTS: 1 |
| 30 | ANS: D | PTS: 1 |
| 31 | ANS: D | PTS: 1 |
| 32 | ANS: D | PTS: 1 |
| 33 | ANS: B | PTS: 1 |

|    |        |        |
|----|--------|--------|
| 34 | ANS: A | PTS: 1 |
| 35 | ANS: C | PTS: 1 |
| 36 | ANS: C | PTS: 1 |
| 37 | ANS: C | PTS: 1 |
| 38 | ANS: E | PTS: 1 |
| 39 | ANS: A | PTS: 1 |
| 40 | ANS: E | PTS: 1 |
| 41 | ANS: E | PTS: 1 |
| 42 | ANS: A | PTS: 1 |
| 43 | ANS: D | PTS: 1 |
| 44 | ANS: C | PTS: 1 |
| 45 | ANS: C | PTS: 1 |
| 46 | ANS: D | PTS: 1 |
| 47 | ANS: A | PTS: 1 |
| 48 | ANS: E | PTS: 1 |
| 49 | ANS: A | PTS: 1 |
| 50 | ANS: C | PTS: 1 |