

Member ID: _____

Time: _____

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LINUX OPERATING SYSTEM FUNDAMENTALS

(190)

NATIONAL 2025

TOTAL POINTS

_____ **100 Points**

Test Time: 60 minutes

Multiple Choice Questions

Directions: Identify the letter of the choice that best completes the statement or answers the question.

1. What command is used to change file permissions?
 - A. chmod
 - B. chown
 - C. chperm
 - D. perm
2. How do you display the manual page for a command?
 - A. help
 - B. man
 - C. guide
 - D. info
3. Which command displays the last few lines of a file and updates as the file grows?
 - A. tail -f
 - B. head -f
 - C. view -f
 - D. read -f
4. Which shell environment variable stores the list of directories searched for commands?
 - A. HOME
 - B. PATH
 - C. SHELL
 - D. ENV
5. How do you view a list of all available shells on the system?
 - A. sh -l
 - B. cat /etc/shells
 - C. ls /bin/shells
 - D. shells
6. How do you export a variable in the current shell environment?
 - A. export VAR
 - B. set VAR
 - C. declare VAR
 - D. define VAR

7. How do you count the number of lines, words, and characters in a file?
 - A. wc
 - B. count
 - C. nl
 - D. grep
8. Which command is used to search for a file by name?
 - A. locate
 - B. find
 - C. search
 - D. grep
9. Which command is used to print the first 10 lines of a file?
 - A. head
 - B. tail
 - C. start
 - D. print
10. How do you check the status of a network interface?
 - A. netstat
 - B. ifconfig
 - C. ip
 - D. netcheck
11. Which command shows the current system uptime?
 - A. time
 - B. uptime
 - C. status
 - D. sysinfo
12. How do you install a package using the apt package manager?
 - A. apt-get install
 - B. yum install
 - C. pkg add
 - D. install
13. Which command is used to display the memory usage on a Linux system?
 - A. free
 - B. mem
 - C. top
 - D. htop

14. How do you create an empty file in Linux?
- A. create
 - B. touch
 - C. mkfile
 - D. newfile
15. Which command shows detailed information about a file?
- A. info
 - B. details
 - C. stat
 - D. file
16. How do you display a list of background jobs in the current session?
- A. jobs
 - B. ps
 - C. bg
 - D. fg
17. Which command is used to mask a service to prevent it from starting?
- A. systemctl disable
 - B. systemctl mask
 - C. service stop
 - D. init disable
18. How do you enable a service to start automatically at boot in a systemd-based system?
- A. systemctl enable
 - B. service enable
 - C. system enable
 - D. init enable
19. How do you remove a package and its configuration files in a Debian-based system?
- A. dpkg -r
 - B. apt-get remove
 - C. yum remove
 - D. apt-get purge
20. Which command is used to check for available package updates in a Red Hat-based system?
- A. yum check-update
 - B. yum update
 - C. rpm -qa
 - D. dnf update

21. How do you install a .deb package in a Debian-based system?
- A. dpkg -i
 - B. apt-get install
 - C. rpm -i
 - D. yum install
22. Which command is used to verify the integrity of a package in a Red Hat-based system?
- A. rpm -V
 - B. yum verify
 - C. rpm -i
 - D. dnf verify
23. How do you update the GRUB bootloader configuration?
- A. grub-update
 - B. update-grub
 - C. grub-install
 - D. grub-conf
24. Which command is used to change the default target in a systemd-based system?
- A. systemctl set-default
 - B. systemctl target
 - C. init set-default
 - D. systemctl runlevel
25. How do you list all available targets in a systemd-based Linux system?
- A. systemctl list-units
 - B. systemctl list-targets
 - C. systemctl list-services
 - D. systemctl targets
26. Which command is used to view the currently active target in a systemd-based Linux system?
- A. systemctl status
 - B. systemctl active
 - C. systemctl target
 - D. systemctl get-default
27. How do you permanently add a swap partition to the system?
- A. Add entry in /etc/fstab
 - B. Use swapadd command
 - C. Modify /etc/swaptab
 - D. Use swapconf command

28. Which command is used to check the file system for errors?
- A. checkfs
 - B. chkfs
 - C. fsck
 - D. checkdisk
29. How do you create a Logical Volume of 100GB in an existing Volume Group?
- A. lvcreate -L 100G
 - B. lvextend -L 100G
 - C. vgcreate -L 100G
 - D. pvcreate -L 100G
30. If a file system is 60% full and the total capacity is 500GB, how much space is used?
- A. 200GB
 - B. 300GB
 - C. 100GB
 - D. 250GB
31. Which file should you edit to configure DNS servers in a Linux system?
- A. /etc/resolv.conf
 - B. /etc/hosts
 - C. /etc/sysconfig/network
 - D. /etc/dns.conf
32. How do you check the connectivity to a remote server?
- A. ping
 - B. traceroute
 - C. netcat
 - D. dig
33. Which command is used to monitor real-time network traffic?
- A. iptop
 - B. netstat
 - C. ping -t
 - D. iftop
34. How do you remount a file system in read-only mode?
- A. mount -o remount,ro
 - B. mount -r
 - C. mount -o ro
 - D. remount -o ro

35. How do you configure a network interface to automatically obtain an IP address via DHCP?
- A. Edit /etc/network/interfaces
 - B. Edit /etc/dhcp/dhclient.conf
 - C. Use dhclient command
 - D. Edit /etc/dhcpd.conf
36. If a file system is 80% full and the total capacity is 250GB, how much space is used?
- A. 200GB
 - B. 150GB
 - C. 100GB
 - D. 180GB
37. How do you view the default gateway configured on your system?
- A. route -n
 - B. ip route show
 - C. netstat -rn
 - D. traceroute
38. Which file is modified when you add a user to a supplementary group?
- A. /etc/passwd
 - B. /etc/shadow
 - C. /etc/group
 - D. /etc/sudoers
39. How do you switch to another user account in the terminal?
- A. su
 - B. switch
 - C. changeuser
 - D. login
40. Which command is used to display a user's group memberships?
- A. group
 - B. usermod -l
 - C. chgroup
 - D. groups
41. If a group has a GID of 1001 and you create another group with the same GID, what happens?
- A. Error: GID already exists
 - B. The new group will overwrite the old group
 - C. Both groups will have the same GID
 - D. A new GID will be assigned automatically

42. Which command is used to delete a group in Linux?
- A. groupdel
 - B. delgroup
 - C. groupremove
 - D. rmgroup
43. How do you list all users currently logged into the system?
- A. users
 - B. w
 - C. who
 - D. finger
44. How do you add an existing user to the sudo group?
- A. usermod -aG sudo
 - B. useradd -G sudo
 - C. sudo useradd -a
 - D. sudoers -a
45. If a user has UID 1000, how do you change it to 2000?
- A. usermod -u 2000
 - B. useradd -u 2000
 - C. chuser -u 2000
 - D. changeuid 2000
46. How do you create a backup of the /etc/passwd file?
- A. backup /etc/passwd /etc/passwd.bak
 - B. cp /etc/passwd /etc/passwd.bak
 - C. cp -b /etc/passwd
 - D. mv /etc/passwd /etc/passwd.bak
47. Which command is used to check for available user sessions and limit them?
- A. ulimit -u
 - B. sessionlimit
 - C. sess -l
 - D. limit -s
48. How do you track which users are accessing a specific file?
- A. auditctl -w /path/to/file
 - B. watch -f /path/to/file
 - C. inotify -w /path/to/file
 - D. lsof /path/to/file

49. Which command is used to set file permissions using symbolic notation?

- A. chmod
- B. chown
- C. chgrp
- D. setfacl

50. How do you monitor the disk I/O of a particular user's processes?

- A. iostat -u username
- B. top -d user
- C. sar -d
- D. iotop -u username