

📖 EASY (Q1–Q10)

Q1. Patch management primarily aims to:

- A. Increase disk space
- B. Improve GUI appearance
- C. Fix bugs and security vulnerabilities
- D. Change hardware

Q2. Which tool is commonly used to apply patches in RHEL-based systems?

- A. rpm
- B. tar
- C. dnf/yum
- D. gcc

Q3. Which command updates all installed packages using dnf?

- A. `dnf install`
- B. `dnf upgrade`
- C. `dnf remove`
- D. `dnf search`

Q4. Which directory stores system log files?

- A. `/etc`
- B. `/usr`
- C. `/var/log`
- D. `/boot`

Q5. Which service manages graphical display in Linux?

- A. `systemd`
- B. `NetworkManager`
- C. X Server
- D. `cron`

Q6. Which command displays system uptime?

- A. `top`
- B. `uptime`
- C. `free`
- D. `who`

Q7. Which file stores X Server configuration?

- A. `/etc/X11/xorg.conf`
- B. `/etc/xserver.conf`
- C. `/etc/display.conf`
- D. `/usr/X11/config`

Q8. Which patch type addresses security vulnerabilities?

- A. Feature patch

- B. Bug fix patch
- C. Security patch
- D. Enhancement patch

Q9. Which command displays memory usage?

- A. df
- B. du
- C. free
- D. lsblk

Q10. Which component provides graphical login screen?

- A. X Server
 - B. Display Manager
 - C. Window Manager
 - D. Kernel
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☐ **MEDIUM (Q11–Q25)**

Q11. Which command checks available package updates without installing them?

- A. dnf list
- B. dnf check-update
- C. dnf info
- D. dnf search

Q12. Which patch management practice reduces risk in production systems?

- A. Immediate patching without testing
- B. Scheduled and tested patching
- C. Disable updates
- D. Manual RPM installs

Q13. Which command displays CPU usage in real time?

- A. free
- B. uptime
- C. top
- D. who

Q14. Which system management tool shows running processes?

- A. ps
- B. top
- C. htop
- D. All of the above

Q15. Which file controls automatic updates using dnf-automatic?

- A. /etc/dnf/dnf.conf

- B. /etc/yum.conf
- C. /etc/dnf/automatic.conf
- D. /etc/sysconfig/dnf

Q16. Which command applies security updates only?

- A. dnf update
- B. dnf upgrade
- C. dnf updateinfo apply security
- D. rpm -Uvh

Q17. Which X component handles keyboard and mouse input?

- A. Window Manager
- B. Display Manager
- C. X Server
- D. Desktop Environment

Q18. Which command shows disk I/O statistics?

- A. df
- B. iostat
- C. free
- D. uptime

Q19. Which display manager is commonly used in GNOME?

- A. KDM
- B. LightDM
- C. GDM
- D. XDM

Q20. Which patching risk exists if updates are delayed?

- A. Higher disk usage
- B. Increased boot time
- C. Exposure to known vulnerabilities
- D. Slower GUI

Q21. Which command displays system hardware information?

- A. uname
- B. lsusb
- C. lscpu
- D. All of the above

Q22. Which file logs X Server errors?

- A. /var/log/messages
- B. /var/log/Xorg.0.log
- C. /var/log/syslog
- D. /var/log/secure

Q23. Which system management task monitors resource utilization trends?

- A. Backup
- B. Capacity planning
- C. Patching
- D. User management

Q24. Which command displays kernel version?

- A. `uname -r`
- B. `lsmod`
- C. `dmesg`
- D. `sysctl`

Q25. Which option restarts X Server safely?

- A. `reboot`
- B. `systemctl restart display-manager`
- C. `killall X`
- D. `logout`

HARD (Q26–Q40)

Q26. Why should patches be tested in staging before production?

- A. Faster updates
- B. Avoid compatibility issues
- C. Save bandwidth
- D. Reduce logs

Q27. Which patch management approach ensures minimal downtime?

- A. Manual patching
- B. Rolling updates
- C. Delayed updates
- D. Offline patching

Q28. Which command identifies services consuming high CPU?

- A. `free`
- B. `uptime`
- C. `top`
- D. `df`

Q29. Why is X Server configuration becoming less common manually?

- A. Lack of support
- B. Kernel dependency
- C. Auto-configuration by modern systems
- D. Security restrictions

Q30. Which tool analyzes system boot performance?

- A. top
- B. htop
- C. systemd-analyze
- D. uptime

Q31. Which security best practice applies to patch management?

- A. Disable patching
- B. Apply patches without backups
- C. Regular updates with rollback plans
- D. Manual kernel compilation always

Q32. Which command displays detailed system messages from kernel?

- A. journalctl
- B. dmesg
- C. syslog
- D. top

Q33. Which display manager feature enhances security?

- A. Auto-login
- B. Passwordless login
- C. Session locking
- D. Open display access

Q34. Which risk is associated with unpatched systems?

- A. Reduced performance
- B. Unauthorized access
- C. Slower boot
- D. GUI crashes

Q35. Which component renders graphical output to screen?

- A. Window Manager
- B. Display Manager
- C. X Server
- D. Desktop Environment

Q36. Which practice improves system stability?

- A. Frequent reboots
- B. Uncontrolled updates
- C. Change management
- D. Disable monitoring

Q37. Which command shows service failures after boot?

- A. systemctl list-units
- B. journalctl -b

- C. systemctl --failed
- D. dnf history

Q38. Why should kernel updates be planned carefully?

- A. They increase disk usage
- B. They always break systems
- C. They may require reboot
- D. They affect GUI only

Q39. Which patch management metric measures effectiveness?

- A. Patch size
- B. Patch success rate
- C. Number of users
- D. CPU usage

Q40. Which principle best guides system management decisions?

- A. Maximum changes
- B. Stability and security
- C. Minimal documentation
- D. GUI preference