

📖 EASY (Q1–Q10)

Q1. What is the size of an IPv4 address?

- A. 16 bits
- B. 32 bits
- C. 64 bits
- D. 128 bits

Q2. What is the size of an IPv6 address?

- A. 32 bits
- B. 64 bits
- C. 96 bits
- D. 128 bits

Q3. Which protocol is used for secure remote login?

- A. Telnet
- B. FTP
- C. SSH
- D. RDP

Q4. What is the default port number for SSH?

- A. 21
- B. 22
- C. 23
- D. 25

Q5. Which command is used to connect to a remote system via SSH?

- A. `telnet`
- B. `ftp`
- C. `ssh`
- D. `scp`

Q6. Which service provides remote graphical access?

- A. SSH
- B. FTP
- C. VNC
- D. NFS

Q7. Which IPv4 address class supports the largest number of hosts?

- A. Class A
- B. Class B
- C. Class C
- D. Class D

Q8. Which file configures the SSH server?

- A. `ssh_config`

- B. sshd_config
- C. known_hosts
- D. authorized_keys

Q9. Which command copies files securely over SSH?

- A. cp
- B. ftp
- C. rsync
- D. scp

Q10. Which VNC port is used for display :1?

- A. 5900
- B. 5901
- C. 5902
- D. 5801

☐ **MEDIUM (Q11–Q25)**

Q11. Which IPv6 notation compresses consecutive zeros?

- A. Binary compression
- B. Hex reduction
- C. Zero compression (::)
- D. CIDR

Q12. Which IPv6 address type is used for local communication only?

- A. Global unicast
- B. Multicast
- C. Link-local
- D. Anycast

Q13. Which SSH authentication method is more secure than passwords?

- A. Anonymous login
- B. Password authentication
- C. Public key authentication
- D. OTP only

Q14. Which file stores public keys for SSH authentication?

- A. known_hosts
- B. ssh_config
- C. authorized_keys
- D. id_rsa

Q15. Which command generates an SSH key pair?

- A. ssh-key

- B. ssh-keygen
- C. keygen
- D. genkey

Q16. Which IPv6 feature eliminates the need for NAT?

- A. Large address space
- B. Broadcast support
- C. Header checksum
- D. Fragmentation

Q17. Which VNC component runs on the client machine?

- A. VNC Server
- B. VNC Viewer
- C. X Server
- D. Display Manager

Q18. Which command checks SSH service status?

- A. service ssh
- B. systemctl status sshd
- C. ssh status
- D. netstat ssh

Q19. Which file disables root login over SSH?

- A. /etc/passwd
- B. /etc/shadow
- C. /etc/ssh/sshd_config
- D. ~/.ssh/config

Q20. Which IPv4 address range is private?

- A. 8.8.8.0/24
- B. 172.16.0.0/12
- C. 169.254.0.0/16
- D. 224.0.0.0/4

Q21. Which command is used to tunnel VNC over SSH?

- A. ssh -X
- B. ssh -L
- C. ssh -R
- D. ssh -Y

Q22. Which authentication mechanism is centralized?

- A. Local authentication
- B. LDAP
- C. /etc/passwd
- D. Shadow file

Q23. Which IPv6 address begins with FE80::?

- A. Global
- B. Loopback
- C. Multicast
- D. Link-local

Q24. Which SSH option increases security?

- A. PermitRootLogin yes
- B. PasswordAuthentication yes
- C. Use of non-standard port
- D. AllowAllUsers

Q25. Which VNC security weakness exists by default?

- A. Encrypted traffic
- B. Strong authentication
- C. Plaintext traffic
- D. Port randomization

HARD (Q26–Q40)

Q26. Why is SSH preferred over Telnet in enterprise environments?

- A. Faster connection
- B. Lower CPU usage
- C. Encrypted communication
- D. Simpler configuration

Q27. Which IPv6 feature replaces broadcast?

- A. Anycast
- B. Multicast
- C. Unicast
- D. Loopback

Q28. Which SSH option enforces key-based authentication only?

- A. PubkeyAuthentication no
- B. PasswordAuthentication no
- C. PermitRootLogin yes
- D. AllowUsers all

Q29. Which network authentication protocol supports ticket-based access?

- A. RADIUS
- B. LDAP
- C. Kerberos
- D. TACACS+

Q30. Which SSH file stores host fingerprints?

- A. authorized_keys
- B. id_rsa
- C. known_hosts
- D. ssh_config

Q31. Which IPv6 address type routes to the nearest node?

- A. Unicast
- B. Multicast
- C. Anycast
- D. Loopback

Q32. Why should VNC be tunneled through SSH?

- A. Faster GUI
- B. Lower latency
- C. Encrypts VNC traffic
- D. Reduces CPU usage

Q33. Which command lists active listening ports?

- A. ifconfig
- B. ip addr
- C. ss -tuln
- D. traceroute

Q34. Which SSH option limits access to specific users?

- A. AllowUsers
- B. PermitRootLogin
- C. MaxSessions
- D. ClientAliveInterval

Q35. Which IPv4 mechanism conserves address space?

- A. Broadcast
- B. NAT
- C. Multicast
- D. Anycast

Q36. Which authentication method integrates Linux with Active Directory?

- A. PAM only
- B. Local users
- C. LDAP/Kerberos
- D. Shadow passwords

Q37. Which SSH feature allows secure port forwarding?

- A. SCP
- B. SFTP

- C. Tunneling
- D. Multiplexing

Q38. Which IPv6 loopback address is correct?

- A. 127.0.0.1
- B. ::1
- C. FE80::1
- D. FF00::1

Q39. Why is disabling password authentication recommended?

- A. Faster login
- B. Reduce memory usage
- C. Prevent brute-force attacks
- D. Improve GUI access

Q40. Which best practice improves SSH security posture?

- A. Allow root login
- B. Use default port
- C. Key-based authentication
- D. Disable logging