

📖 EASY (10 Questions)

Q1. Which OSI layer is responsible for logical addressing?

- A. Data Link
- B. Network
- C. Transport
- D. Session

Q2. Which protocol resolves IP address to MAC address?

- A. DNS
- B. ARP
- C. ICMP
- D. RARP

Q3. Which device breaks broadcast domains?

- A. Hub
- B. Switch
- C. Router
- D. Repeater

Q4. Which IPv4 address class provides the largest number of hosts?

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

Q5. Which routing protocol uses hop count as its metric?

- A. OSPF
- B. EIGRP
- C. RIP
- D. BGP

Q6. VLANs primarily operate at which OSI layer?

- A. Layer 1
- B. Layer 2
- C. Layer 3
- D. Layer 4

Q7. Which protocol prevents Layer-2 loops?

- A. ARP
- B. STP
- C. RIP
- D. ICMP

Q8. Which SDN protocol communicates between controller and switch?

- A. SNMP
- B. NETCONF
- C. OpenFlow
- D. BGP

Q9. Which IPv6 address represents loopback?

- A. ::
- B. ::1
- C. fe80::1
- D. ff02::1

Q10. Which WAN technology uses packet switching?

- A. PSTN
- B. Leased Line
- C. Frame Relay
- D. ISDN

☐ **MEDIUM (15 Questions)**

Q11. Which OSI layer ensures reliable data transfer?

- A. Network
- B. Data Link
- C. Transport
- D. Session

Q12. Which subnet mask supports 62 usable hosts?

- A. /25
- B. /26
- C. /27
- D. /28

Q13. Which routing protocol uses Dijkstra's algorithm?

- A. RIP
- B. EIGRP
- C. OSPF
- D. BGP

Q14. Which Cisco IOS memory stores the running configuration?

- A. ROM
- B. Flash
- C. RAM
- D. NVRAM

Q15. Which VLAN trunking standard is IEEE-based?

- A. ISL
- B. DTP
- C. 802.1Q
- D. PVST

Q16. Which STP bridge priority value is preferred?

- A. Highest
- B. Lowest
- C. Random
- D. MAC-based only

Q17. Which NAT type allows multiple private IPs to share one public IP?

- A. Static NAT
- B. Dynamic NAT
- C. PAT
- D. Twice NAT

Q18. Which IPv6 feature removes the need for NAT?

- A. SLAAC
- B. Anycast
- C. Large address space
- D. ICMPv6

Q19. Which PPP protocol negotiates authentication?

- A. NCP
- B. LCP
- C. PAP
- D. IPCP

Q20. Which SDN plane makes routing decisions?

- A. Data plane
- B. Control plane
- C. Application plane
- D. Physical plane

Q21. Which OpenFlow message installs flow rules?

- A. Packet-In
- B. Packet-Out
- C. Flow-Mod
- D. Echo

Q22. Which OpenDaylight datastore holds real-time state?

- A. Config
- B. Operational
- C. Local
- D. Cache

Q23. Which technology supports overlay networking in data centers?

- A. VLAN
- B. VXLAN
- C. STP
- D. ARP

Q24. Which vCPE benefit improves service agility?

- A. Fixed hardware
- B. Zero-touch provisioning
- C. Manual upgrades
- D. Static routing

Q25. Which NAC protocol is commonly used for authentication?

- A. FTP
 - B. SNMP
 - C. RADIUS
 - D. HTTP
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HARD (15 Questions)

Q26. Which VLSM design rule prevents address overlap?

- A. Smallest subnet first
- B. Largest subnet first
- C. Random allocation
- D. Equal-size subnetting

Q27. Which EIGRP condition allows a feasible successor?

- A. $FD < AD$
- B. $AD < FD$
- C. Equal metrics
- D. Same hop count

Q28. Which OSPF area blocks external LSAs?

- A. Backbone
- B. Standard
- C. Stub
- D. Transit

Q29. Which VLAN attack exploits double tagging?

- A. ARP spoofing
- B. MAC flooding
- C. VLAN hopping
- D. DHCP starvation

Q30. Which WAN technology replaced Frame Relay in enterprises?

- A. ISDN
- B. ATM
- C. MPLS
- D. PSTN

Q31. Which BGP attribute prevents routing loops?

- A. Local Preference
- B. MED
- C. Weight
- D. AS_PATH

Q32. Which SDN challenge relates to controller synchronization?

- A. Performance
- B. Scalability
- C. Consistency
- D. Security

Q33. Which OpenFlow feature enables rate limiting?

- A. Priorities
- B. Timeouts
- C. Meters
- D. Cookies

Q34. Which OpenDaylight component abstracts YANG models?

- A. OVSDB
- B. MD-SAL
- C. Karaf
- D. DLUX

Q35. Which virtual networking identifier supports 16 million segments?

- A. VLAN ID
- B. MAC address
- C. VNI
- D. Subnet mask

Q36. Which SFC component defines service order?

- A. Classifier
- B. Service Function
- C. Service Function Path
- D. Forwarder

Q37. Which LISP component maps identity to location?

- A. EID
- B. RLOC
- C. Map-Server
- D. ASBR

Q38. Which SDN security risk targets the controller directly?

- A. VLAN hopping
- B. MAC flooding
- C. Controller DoS
- D. ARP poisoning

Q39. Which datacenter topology optimizes east-west traffic?

- A. Three-tier
- B. Hub-and-spoke
- C. Spine-leaf
- D. Ring

Q40. Which statement best describes modern networking?

- A. Hardware-centric and static
- B. Device-level manual configuration
- C. Policy-driven, software-defined, virtualized
- D. Flat Layer-2 networks