⬚ EASY (10 Questions)

Q1. What is the primary purpose of NAT?

A. Encrypt data
B. Translate IP addresses
C. Increase bandwidth
D. Reduce latency

Q2. Which NAT type maps one private IP to one public IP?

A. PAT
B. Dynamic NAT
C. Static NAT
D. Overloading

Q3. IPv6 address size is:

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

Q4. Which IPv6 address type is equivalent to IPv4 private addresses?

A. Global unicast
B. Multicast
C. Anycast
D. Unique local

Q5. Which protocol replaces ARP in IPv6?

A. ICMPv6
B. NDP
C. DHCPv6
D. RIPng

Q6. Which WAN technology uses packet switching?

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

Q7. Which IPv6 notation compresses consecutive zeros?

A. Binary notation
B. Hexadecimal expansion
C. Zero compression (::)
D. Subnet masking

Q8. Which NAT type allows multiple hosts to share one public IP?

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

Q9. Which WAN technology uses virtual circuits?

A. Ethernet
B. Frame Relay
C. DSL
D. Wi-Fi

Q10. Which IPv6 address is used for loopback?

A. ::
B. ::1
C. fe80::1
D. 2001::1

☐ MEDIUM (15 Questions)

Q11. Which NAT term refers to inside private addresses?

A. Inside local
B. Inside global
C. Outside local
D. Outside global

Q12. Which IPv6 feature eliminates the need for NAT?

A. SLAAC
B. Large address space
C. Anycast
D. Multicast

Q13. Which WAN technology provides dedicated bandwidth?

A. Frame Relay
B. MPLS
C. Leased line
D. Broadband

Q14. Which IPv6 address scope is valid only on local link?

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

Q15. Which NAT method uses a pool of public IPs?

A. Static NAT
B. Dynamic NAT
C. PAT
D. Policy NAT

Q16. Which IPv6 header field replaces TTL?

A. Hop count
B. Flow label
C. Hop limit
D. Traffic class

Q17. Which WAN protocol uses labels for forwarding?

A. Frame Relay
B. ATM
C. MPLS
D. HDLC

Q18. Which IPv6 feature supports auto-configuration?

A. DHCPv6 only
B. SLAAC
C. NAT64
D. ICMP

Q19. Which NAT issue breaks end-to-end connectivity?

A. Address resolution
B. Port translation
C. Address translation
D. Encapsulation

Q20. Which WAN technology supports QoS and traffic engineering?

A. Leased line
B. Frame Relay
C. MPLS
D. DSL

Q21. Which IPv6 transition technique encapsulates IPv6 in IPv4?

A. Dual stack
B. NAT64
C. Tunneling
D. Translation

Q22. Which NAT type translates both source and destination?

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

Q23. Which IPv6 address type delivers to multiple interfaces?

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

Q24. Which WAN technology is circuit-switched?

A. Frame Relay
B. MPLS
C. PSTN
D. Ethernet

Q25. Which IPv6 header simplifies packet processing?

A. Fixed-length header
B. Options header
C. Fragment header
D. Authentication header

🖤 HARD (15 Questions)

Q26. Which NAT table entry maps inside local to inside global?

A. Static entry
B. Translation entry
C. Routing entry
D. ARP entry

Q27. Which IPv6 feature improves routing efficiency?

A. Header checksum
B. Extension headers
C. Hierarchical addressing
D. Fragmentation by routers

Q28. Which WAN technology replaced Frame Relay in enterprises?

A. ISDN
B. MPLS
C. DSL
D. ATM

Q29. Which IPv6 address is automatically assigned to every interface?

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

Q30. Which NAT problem affects protocols embedding IP info in payload?

A. Port exhaustion
B. Application-layer gateway issue
C. NAT traversal
D. Routing loop

Q31. Which IPv6 transition mechanism allows IPv4-only apps?

A. Dual stack
B. NAT64
C. 6to4
D. ISATAP

Q32. Which WAN feature ensures reliability in MPLS?

A. Labels
B. Traffic engineering & fast reroute
C. Virtual circuits
D. Hop count

Q33. Which IPv6 address range represents link-local?

A. fc00::/7
B. fe80::/10
C. ff00::/8
D. 2000::/3

Q34. Which NAT technique is most scalable?

A. Static NAT
B. Dynamic NAT
C. PAT
D. Policy NAT

Q35. Which WAN protocol uses DLCIs?

A. MPLS
B. Frame Relay
C. ATM
D. PPP

Q36. Why does IPv6 remove header checksum?

A. Improve security
B. Reduce overhead
C. Increase reliability
D. Support NAT

Q37. Which IPv6 feature supports traffic prioritization?

A. Flow label
B. Hop limit
C. Extension headers
D. SLAAC

Q38. Which NAT type is commonly used in home routers?

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

Q39. Which WAN technology uses cells of fixed size?

A. Frame Relay
B. MPLS
C. ATM
D. Ethernet

Q40. Which statement best describes IPv6?

A. Smaller address space than IPv4
B. Uses NAT by design
C. Supports end-to-end connectivity
D. Uses broadcast extensively