

📖 EASY (10 Questions)

Q1. PPP operates at which OSI layer?

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

Q2. Which protocol is used by PPP to establish the link?

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

Q3. Which PPP authentication protocol sends passwords in plain text?

- A. CHAP
- B. EAP
- C. PAP
- D. MS-CHAP

Q4. PPPoE is commonly used with which access technology?

- A. Leased Line
- B. MPLS
- C. DSL
- D. Frame Relay

Q5. Which protocol encapsulates packets to form a tunnel?

- A. IPsec
- B. GRE
- C. PPP
- D. ARP

Q6. eBGP is used to exchange routes between:

- A. Routers in same AS
- B. Different autonomous systems
- C. Hosts in LAN
- D. VLANs

Q7. Which PPP feature allows multiple links to be bundled?

- A. PAP
- B. CHAP
- C. MLPPP
- D. PPPoE

Q8. Which protocol negotiates network layer parameters in PPP?

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

Q9. Which TCP port does BGP use?

- A. 110
- B. 179
- C. 443
- D. 520

Q10. GRE supports encapsulation of:

- A. IP only
- B. IPv6 only
- C. Multiple Layer 3 protocols
- D. Ethernet frames only

☐ **MEDIUM (15 Questions)**

Q11. What is the main advantage of PPP over HDLC?

- A. Lower overhead
- B. Authentication support
- C. Faster speed
- D. Hardware dependency

Q12. Which PPP authentication protocol uses challenge–response?

- A. PAP
- B. CHAP
- C. EAP
- D. MS-CHAP v2

Q13. Which PPP phase follows link establishment?

- A. Termination
- B. Authentication
- C. Network layer configuration
- D. Dead phase

Q14. Which MLPPP benefit improves throughput?

- A. Compression
- B. Load balancing
- C. Encryption
- D. Error correction

Q15. Which PPPoE component runs on customer premises?

- A. PPPoE server
- B. Access concentrator
- C. PPPoE client
- D. BRAS

Q16. Which GRE limitation requires IPsec for security?

- A. No tunneling support
- B. No encryption
- C. No routing support
- D. No encapsulation

Q17. Which BGP attribute determines path selection first?

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

Q18. Which PPP feature negotiates compression and authentication?

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

Q19. Which eBGP deployment is typical for a branch office?

- A. Dual-homed
- B. Multi-homed
- C. Single-homed
- D. Transit AS

Q20. Which PPPoE discovery stage establishes session ID?

- A. PADI
- B. PADO
- C. PADR
- D. PADS

Q21. Which BGP attribute prevents routing loops?

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

Q22. Which MLPPP feature handles packet sequencing?

- A. LCP
- B. NCP
- C. Fragmentation
- D. Reassembly

Q23. Which PPP protocol negotiates IP address assignment?

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

Q24. Which BGP message type establishes neighbor relationship?

- A. Update
- B. Keepalive
- C. Open
- D. Notification

Q25. Which protocol commonly runs inside a GRE tunnel?

- A. ARP
 - B. BGP
 - C. ICMP only
 - D. Ethernet
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HARD (15 Questions)

Q26. Which PPP option detects link quality?

- A. Authentication
- B. Magic number
- C. LQM
- D. MRU

Q27. Which MLPPP scenario best fits enterprise WAN?

- A. Single serial link
- B. Multiple equal-speed links
- C. Wireless LAN
- D. Ethernet LAN

Q28. Why is CHAP considered more secure than PAP?

- A. Uses encryption
- B. Password not sent directly
- C. Faster authentication
- D. Uses certificates

Q29. Which GRE use case enables routing over non-routed networks?

- A. VPN encryption
- B. Multicast transport
- C. NAT translation
- D. Address allocation

Q30. Which BGP attribute is Cisco-specific and highest priority?

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

Q31. Which PPP phase handles error detection and link testing?

- A. Dead
- B. Establishment
- C. Authentication
- D. Termination

Q32. Which PPPoE disadvantage affects MTU size?

- A. Fragmentation
- B. Encryption overhead
- C. Reduced MTU
- D. Address exhaustion

Q33. Which BGP timer detects neighbor failure?

- A. Open timer
- B. Hold timer
- C. Update timer
- D. Scan timer

Q34. Which MLPPP mechanism ensures correct packet order?

- A. Sequencing numbers
- B. Hashing
- C. Load sharing
- D. Authentication

Q35. Which GRE field identifies encapsulated protocol?

- A. Checksum
- B. Key
- C. Protocol Type
- D. Sequence number

Q36. Which BGP deployment avoids acting as transit AS?

- A. Multi-homed
- B. Dual-homed
- C. Single-homed
- D. Internet backbone

Q37. Which PPP feature negotiates maximum frame size?

- A. MRU
- B. MTU
- C. LQM
- D. IPCP

Q38. Which BGP message is sent periodically to maintain session?

- A. Update
- B. Open
- C. Keepalive
- D. Notification

Q39. Which security risk exists when using GRE alone?

- A. Replay attack
- B. Lack of authentication
- C. No encryption
- D. Routing loop

Q40. Which statement best describes eBGP in single-homed branch?

- A. Connects to multiple ISPs
- B. Acts as transit AS
- C. Exchanges routes with one ISP only
- D. No routing policy applied