

## **📖 EASY (10 Questions)**

Q1. What is the primary purpose of a VLAN?

- A. Increase bandwidth
- B. Reduce latency
- C. Logical network segmentation
- D. Replace routing

Q2. VLANs operate at which OSI layer?

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

Q3. Which IEEE standard defines VLAN tagging?

- A. 802.3
- B. 802.1D
- C. 802.1Q
- D. 802.11

Q4. Which VLAN is the default VLAN on Cisco switches?

- A. VLAN 0
- B. VLAN 10
- C. VLAN 100
- D. VLAN 1

Q5. What is the VLAN ID range in IEEE 802.1Q?

- A. 0–255
- B. 1–1000
- C. 1–4094
- D. 1–8192

Q6. Which switch port type carries traffic for multiple VLANs?

- A. Access port
- B. Trunk port
- C. Routed port
- D. Monitor port

Q7. Which VLAN is used for switch management by default?

- A. VLAN 1
- B. VLAN 99
- C. VLAN 100
- D. VLAN 1000

Q8. Which device is required for communication between VLANs?

- A. Hub
- B. Switch
- C. Router or Layer 3 switch
- D. Repeater

Q9. Which VLAN carries untagged traffic on a trunk?

- A. Native VLAN
- B. Default VLAN
- C. Management VLAN
- D. Data VLAN

Q10. Which command assigns a port to a VLAN?

- A. switchport trunk allowed vlan
- B. vlan database
- C. switchport access vlan
- D. ip route

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## ☐ **MEDIUM (15 Questions)**

Q11. What is the main benefit of VLANs?

- A. Increased collisions
- B. Improved security and broadcast control
- C. Faster routing
- D. Elimination of routers

Q12. Which VLAN type is used to manage switch access?

- A. Data VLAN
- B. Native VLAN
- C. Management VLAN
- D. Voice VLAN

Q13. What is Inter-VLAN routing?

- A. Routing within a VLAN
- B. Routing between different VLANs
- C. Switching between VLANs
- D. NAT between VLANs

Q14. Which method uses a single router interface for multiple VLANs?

- A. Legacy routing
- B. Router-on-a-stick
- C. Layer 3 switching
- D. Trunk-less routing

Q15. Which protocol manages VLAN information across switches?

- A. STP
- B. DTP
- C. VTP
- D. ARP

Q16. Which VTP mode allows VLAN creation and propagation?

- A. Client
- B. Transparent
- C. Server
- D. Off

Q17. Which VTP mode does NOT synchronize VLANs?

- A. Server
- B. Client
- C. Transparent
- D. Domain

Q18. Which feature assigns VLANs dynamically based on MAC address?

- A. VTP
- B. Port-based VLAN
- C. MAC-based VLAN
- D. Native VLAN

Q19. Which trunking protocol is Cisco proprietary?

- A. 802.1Q
- B. ISL
- C. VTP
- D. STP

Q20. Which device performs Inter-VLAN routing most efficiently?

- A. Router with multiple interfaces
- B. Hub
- C. Layer 3 switch
- D. Layer 2 switch

Q21. Which VLAN is recommended NOT to be used for user traffic?

- A. VLAN 10
- B. VLAN 20
- C. VLAN 99
- D. VLAN 1

Q22. Which command enables trunking manually?

- A. switchport mode auto
- B. switchport mode dynamic desirable
- C. switchport mode trunk
- D. switchport trunk native vlan

Q23. Which VTP parameter must match for VLAN propagation?

- A. Hostname
- B. IP address
- C. VTP domain name
- D. Interface speed

Q24. Which VLAN is commonly used for IP phones?

- A. Data VLAN
- B. Native VLAN
- C. Management VLAN
- D. Voice VLAN

Q25. Which encapsulation method adds a 4-byte tag?

- A. ISL
  - B. 802.1Q
  - C. SNAP
  - D. HDLC
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## **HARD (15 Questions)**

Q26. What happens if native VLANs mismatch on a trunk?

- A. Link failure
- B. Routing loop
- C. VLAN hopping vulnerability
- D. No impact

Q27. Which Inter-VLAN routing method provides highest performance?

- A. Router-on-a-stick
- B. Legacy routing
- C. Layer 3 switching
- D. Static routing

Q28. Which VTP mode forwards VLAN information but does not store it?

- A. Server
- B. Client
- C. Transparent
- D. Off

Q29. Which VLAN attack exploits double tagging?

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

Q30. Which VLAN feature isolates voice traffic?

- A. Native VLAN
- B. Management VLAN
- C. Voice VLAN
- D. Default VLAN

Q31. Which VTP revision number behavior is critical?

- A. Lower revision overrides higher
- B. Higher revision overwrites VLAN database
- C. Revision numbers are ignored
- D. Only server checks revision

Q32. Which VLAN configuration error can erase VLANs?

- A. Native VLAN mismatch
- B. Incorrect VTP domain
- C. Higher VTP revision joining domain
- D. Disabled trunking

Q33. Which command verifies VLAN membership?

- A. show interfaces trunk
- B. show vtp status
- C. show vlan brief
- D. show mac address-table

Q34. Which VLAN implementation uses a single broadcast domain?

- A. Multiple VLANs
- B. No VLANs
- C. Voice VLAN
- D. Management VLAN

Q35. Which trunk encapsulation is open standard?

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

Q36. Which VLAN design principle improves scalability?

- A. Flat VLAN design
- B. Hierarchical VLAN design
- C. Single VLAN network
- D. Default VLAN usage

Q37. Which security best practice protects unused switch ports?

- A. Enable trunking
- B. Assign to unused VLAN and shutdown
- C. Enable VTP server
- D. Use native VLAN

Q38. Which VLAN-related protocol negotiates trunking?

- A. VTP
- B. STP
- C. DTP
- D. CDP

Q39. Which VLAN feature separates broadcast domains?

- A. STP
- B. VLAN
- C. Trunking
- D. PortFast

Q40. Which statement best describes VLANs?

- A. Physical segmentation only
- B. Logical segmentation of networks
- C. Replacement for routing
- D. Encryption mechanism