

📖 EASY (10 Questions)

Q1. Virtual networking primarily enables:

- A. Physical cable reduction only
- B. Logical network abstraction
- C. Elimination of routing
- D. Manual network control

Q2. Which technology enables multiple virtual networks over shared infrastructure?

- A. NAT
- B. VLAN
- C. Virtualization
- D. SDN

Q3. NAC stands for:

- A. Network Address Control
- B. Network Access Control
- C. Network Application Control
- D. Network Authentication Core

Q4. NAC is mainly used to:

- A. Route packets
- B. Authenticate and authorize devices
- C. Encrypt WAN traffic
- D. Replace firewalls

Q5. vCPE refers to:

- A. Virtual Core Processing Engine
- B. Virtual Customer Premises Equipment
- C. Virtual Central Packet Exchange
- D. Virtual Cloud Provider Edge

Q6. Datacenter optimization focuses on:

- A. Increasing cable length
- B. Improving performance and efficiency
- C. Disabling redundancy
- D. Manual provisioning

Q7. Which component enforces policies in NAC?

- A. Endpoint only
- B. Policy server
- C. Switch port only
- D. Router only

Q8. Which technology is commonly used in virtual networking?

- A. Token Ring
- B. VXLAN
- C. Frame Relay
- D. ISDN

Q9. Which virtual networking element maps virtual to physical networks?

- A. Hypervisor
- B. Virtual switch
- C. Router
- D. Firewall

Q10. Which datacenter goal reduces operational cost?

- A. Overprovisioning
- B. Automation
- C. Manual scaling
- D. Single-tier design

☐ **MEDIUM (15 Questions)**

Q11. Which overlay protocol supports large-scale multi-tenant networks?

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

Q12. Which NAC component evaluates compliance posture?

- A. Supplicant
- B. Authenticator
- C. Policy server
- D. Switch

Q13. Which vCPE benefit reduces hardware dependency?

- A. Physical appliances
- B. Virtualized network functions
- C. Manual provisioning
- D. Dedicated circuits

Q14. Which datacenter design improves east-west traffic handling?

- A. Traditional three-tier
- B. Hub-and-spoke
- C. Spine-leaf
- D. Ring topology

Q15. Which protocol is used by NAC for authentication?

- A. FTP
- B. RADIUS
- C. HTTP
- D. SNMP

Q16. Which virtual switch operates inside hypervisors?

- A. Core switch
- B. Access switch
- C. vSwitch
- D. Router

Q17. Which vCPE use case improves service agility?

- A. Static routing
- B. On-demand service provisioning
- C. Manual upgrades
- D. Fixed appliances

Q18. Which datacenter optimization metric focuses on uptime?

- A. Latency
- B. Throughput
- C. Availability
- D. Bandwidth

Q19. Which NAC deployment enforces security before network access?

- A. Post-admission NAC
- B. Pre-admission NAC
- C. Passive NAC
- D. Out-of-band NAC

Q20. Which technology integrates with SDN for virtual networking?

- A. Token Ring
- B. NFV
- C. ATM
- D. PSTN

Q21. Which overlay encapsulation uses UDP?

- A. GRE
- B. VXLAN
- C. MPLS
- D. ISL

Q22. Which vCPE function is commonly virtualized?

- A. Power supply
- B. Firewall
- C. Cable modem
- D. Patch panel

Q23. Which datacenter approach reduces manual configuration errors?

- A. Static provisioning
- B. Automation and orchestration
- C. Single vendor lock-in
- D. Flat topology

Q24. Which NAC mode monitors traffic without enforcement?

- A. Inline NAC
- B. Pre-admission NAC
- C. Passive NAC
- D. Enforcement NAC

Q25. Which virtual networking feature isolates tenants?

- A. Broadcast domains
 - B. VLAN/VXLAN segmentation
 - C. MAC learning
 - D. STP
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HARD (15 Questions)

Q26. Which VXLAN identifier supports large-scale segmentation?

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

Q27. Which NAC architecture integrates with identity services?

- A. VLAN-only NAC
- B. Identity-based NAC
- C. Static NAC
- D. Port-only NAC

Q28. Which vCPE advantage accelerates service rollout?

- A. Hardware shipment
- B. Zero-touch provisioning
- C. Manual installation
- D. Fixed firmware

Q29. Which datacenter challenge arises from high east-west traffic?

- A. Routing loops
- B. Bandwidth bottlenecks
- C. Address exhaustion
- D. Authentication failure

Q30. Which NAC protocol supports device posture assessment?

- A. ICMP
- B. DHCP
- C. 802.1X
- D. ARP

Q31. Which virtual networking component handles packet encapsulation?

- A. Physical switch
- B. Overlay tunnel endpoint
- C. Router only
- D. Firewall only

Q32. Which vCPE model aligns with NFV principles?

- A. Dedicated hardware appliances
- B. Cloud-hosted virtual functions
- C. Manual service chaining
- D. Static routing devices

Q33. Which datacenter optimization technique improves scalability?

- A. Vertical scaling only
- B. Horizontal scaling
- C. Manual expansion
- D. Single-server design

Q34. Which NAC risk affects user experience?

- A. False positives in compliance checks
- B. VLAN segmentation
- C. Encryption strength
- D. Controller clustering

Q35. Which virtual networking benefit supports cloud multi-tenancy?

- A. Flat networks
- B. Logical isolation
- C. Static IP addressing
- D. Manual ACLs

Q36. Which datacenter fabric supports predictable latency?

- A. Three-tier
- B. Spine-leaf
- C. Bus topology
- D. Star topology

Q37. Which NAC deployment is most scalable?

- A. Standalone NAC
- B. Centralized policy-based NAC
- C. Port-based NAC only
- D. Static ACL NAC

Q38. Which vCPE challenge involves latency?

- A. Service chaining overhead
- B. Hardware failure
- C. IP addressing
- D. VLAN mismatch

Q39. Which virtual networking trend supports micro-segmentation?

- A. Flat VLANs
- B. SDN-based policies
- C. Static routing
- D. MAC flooding

Q40. Which statement best describes datacenter optimization?

- A. Increasing manual operations
- B. Improving efficiency, scalability, and reliability
- C. Eliminating redundancy
- D. Reducing virtualization