⬚ EASY (10 Questions)

Q1. What is the primary characteristic of cloud computing?

A. Fixed resource allocation
B. On-demand self-service
C. Manual provisioning
D. Single-tenant architecture

Q2. In the Cloud SPI model, which layer provides ready-to-use applications?

A. IaaS
B. PaaS
C. SaaS
D. NaaS

Q3. Which cloud deployment model is shared by multiple organizations with similar requirements?

A. Public cloud
B. Private cloud
C. Community cloud
D. Hybrid cloud

Q4. A Service Level Agreement (SLA) primarily defines:

A. Pricing discounts
B. Security vulnerabilities
C. Performance and availability commitments
D. API request formats

Q5. Which service model gives users control over operating systems and applications?

A. SaaS
B. PaaS
C. IaaS
D. FaaS

Q6. Which cloud service category provides object storage?

A. Compute
B. Storage
C. Integration
D. Security

Q7. OpenStack is best described as:

A. A proprietary cloud platform
B. A container orchestration tool
C. An open-source cloud operating system
D. A hypervisor

Q8. Hyper-Converged Infrastructure (HCI) integrates:

A. Compute, storage, and networking
B. Networking and security only
C. Storage and backup only
D. Compute and databases only

Q9. Software Defined Networking (SDN) separates:

A. Storage and compute
B. Control plane and data plane
C. Virtual machines and containers
D. Public and private networks

Q10. VM Scale Sets are mainly used to:

A. Manage databases
B. Deploy scalable VM instances
C. Configure virtual networks
D. Secure APIs

☐ MEDIUM (15 Questions)

Q11. Which cloud deployment model best suits organizations with strict regulatory compliance?

A. Public cloud
B. Private cloud
C. Hybrid cloud
D. Community cloud

Q12. Identity and Access Management (IAM) primarily enforces:

A. Network encryption
B. Authentication and authorization
C. Data replication
D. Storage provisioning

Q13. In cloud architecture, the responsibility of resource abstraction lies mainly with:

A. Physical hardware
B. Virtualization layer
C. Application layer
D. User interface layer

Q14. Which service category supports CI/CD pipelines and code collaboration?

A. Media services
B. Developer tools
C. Mobile services
D. Integration services

Q15. A key cloud development best practice is:

A. Hard-coding credentials
B. Manual scaling
C. Designing for failure
D. Using single availability zones

Q16. In OpenStack, Nova is responsible for:

A. Object storage
B. Identity management
C. Compute services
D. Networking

Q17. Compared to traditional cloud, HCI primarily improves:

A. Internet bandwidth
B. Operational simplicity
C. Application portability
D. Vendor lock-in

Q18. Which SDN component makes forwarding decisions?

A. Data plane
B. Control plane

C. Application plane
D. Physical plane

Q19. App Services in cloud platforms are mainly used for:

A. Running container clusters
B. Hosting web and mobile applications
C. Managing virtual networks
D. Provisioning storage

Q20. API Apps are best suited for:

A. Background batch processing
B. Exposing backend services through APIs
C. Managing user identities
D. Virtual machine provisioning

Q21. In virtual network configuration using SDN, policies are enforced by:

A. Physical switches
B. Hypervisors only
C. Centralized controllers
D. Storage controllers

Q22. Cloud API integration primarily enables:

A. Manual resource management
B. Automation and service interoperability
C. Network isolation
D. Data encryption

Q23. During DC to cloud migration, the "lift-and-shift" approach implies:

A. Re-architecting applications
B. Migrating without code changes
C. Containerizing applications
D. Replacing legacy systems

Q24. Storage synchronization in DC/DR setups ensures:

A. Load balancing
B. Data consistency between sites
C. Faster compute performance
D. Reduced network latency

Q25. Bootstrapping a Chef or Puppet server mainly involves:

A. Installing hypervisors
B. Initial configuration and agent registration
C. Creating VM templates
D. Migrating databases

◉ HARD (15 Questions)

Q26. Which cloud characteristic allows resources to automatically scale based on demand?

A. Resource pooling
B. Measured service
C. Rapid elasticity
D. Broad network access

Q27. In a hybrid cloud scenario, data sensitivity typically determines:

A. API formats
B. VM instance types
C. Workload placement
D. Network protocols

Q28. A major architectural challenge in cloud security is:

A. Hardware failures
B. Shared responsibility model ambiguity
C. Unlimited scalability
D. Excess storage capacity

Q29. In cloud architecture, stateless application design is preferred because it:

A. Reduces storage cost
B. Simplifies horizontal scaling
C. Eliminates network latency
D. Improves encryption

Q30. OpenStack Neutron primarily provides:

A. Object storage
B. Image management
C. Networking services
D. Compute scheduling

Q31. Compared to cloud infrastructure, HCI deployments are typically:

A. More complex to manage
B. Hardware-centric and tightly integrated
C. Fully serverless
D. Dependent on public internet

Q32. SDN enables network programmability by:

A. Using proprietary hardware
B. Centralizing control logic
C. Eliminating routing protocols
D. Disabling virtualization

Q33. VM Scale Sets combined with load balancers primarily enhance:

A. Data durability
B. Application availability and scalability
C. Storage throughput
D. Network encryption

Q34. Cloud-based search services are optimized for:

A. Transactional consistency
B. Full-text indexing and querying
C. Block-level storage
D. VM provisioning

Q35. In DC/DR migration, asynchronous replication is preferred when:

A. Zero data loss is mandatory
B. Latency between sites is high
C. Sites are in the same data center
D. Storage is local only

Q36. Storage synchronization mechanisms must handle which critical issue?

A. API throttling
B. Data conflict resolution
C. VM scheduling
D. User authentication

Q37. Chef and Puppet differ from traditional scripts because they:

A. Are executed manually
B. Are state-driven and idempotent
C. Require GUI interaction
D. Depend on virtualization

Q38. In large-scale cloud environments, API rate limiting is essential to:

A. Increase latency
B. Prevent service abuse and instability
C. Improve encryption
D. Reduce storage cost

Q39. A key risk during DC/DR migration is:

A. Over-provisioning compute
B. Data inconsistency during cutover
C. Excess monitoring
D. API compatibility

Q40. Bootstrapping configuration management servers enables:

A. Stateless application design
B. Automated and consistent infrastructure configuration
C. Manual system administration
D. Reduced network bandwidth