Unit I: Virtualization Techniques (Chapter 1-3)

1. What is the primary purpose of virtualization technology?
   a) Enhancing graphics performance
   b) Resource sharing
   c) Reducing network latency
   d) Encrypting data
   Answer: b) Resource sharing

2. Which of the following is NOT a type of virtualization?
   a) Server virtualization
   b) Hardware virtualization
   c) Cloud virtualization
   d) Physical virtualization
   Answer: d) Physical virtualization

3. What does VLAN stand for?
   a) Very Large Area Network
   b) Virtual Logical Area Network
   c) Visual Local Access Network
   d) Virtual Local Area Network
   Answer: d) Virtual Local Area Network

4. What is a key benefit of using VLANs?
   a) Enhanced security
   b) Faster internet speed
   c) Reduced hardware costs
   d) Improved gaming performance
   Answer: a) Enhanced security

5. What does SLAN stand for in the context of virtualization?
   a) Special Local Area Network
   b) Secure Logical Area Network
   c) Server-Level Area Network
   d) Single-Line Area Network
   Answer: c) Server-Level Area Network

6. What is a key advantage of using VSAN (Virtual Storage Area Network)?
   a) Lower CPU usage
   b) Improved storage management
   c) Enhanced network performance
   d) Better gaming experience
   Answer: b) Improved storage management

7. In the context of virtualization, what is a hypervisor?
   a) A type of encryption algorithm
   b) The physical server hardware
   c) The software that manages virtual machines
   d) A type of network protocol
   Answer: c) The software that manages virtual machines

8. What is a common benefit of hardware virtualization?
   a) Improved gaming performance

b) Reduced hardware costs
c) Enhanced network security
d) Increased software compatibility
Answer: b) Reduced hardware costs

9. What is the primary purpose of a VLAN?
a) Load balancing
b) Network segmentation
c) Data encryption
d) Wireless networking
Answer: b) Network segmentation

10. Which of the following is NOT a benefit of using VSAN (Virtual Storage Area Network)?
a) Improved data security
b) Enhanced storage management
c) Reduced storage costs
d) Better data backup solutions
Answer: d) Better data backup solutions

Unit II: Introduction to Cloud Computing (Chapter 4-5)

11. Where do the roots of cloud computing trace back to?
a) 1990s
b) 2000s
c) 1970s
d) 1980s
Answer: c) 1970s

12. What is a defining characteristic of cloud computing?
a) Limited scalability
b) Centralized infrastructure
c) On-demand self-service
d) High upfront costs
Answer: c) On-demand self-service

13. Which of the following is NOT a layer in cloud computing architecture?
a) Infrastructure as a Service (IaaS)
b) Hardware as a Service (HaaS)
c) Platform as a Service (PaaS)
d) Software as a Service (SaaS)
Answer: b) Hardware as a Service (HaaS)

14. What is the primary focus of cloud infrastructure management?
a) Managing physical servers
b) Optimizing network protocols
c) Monitoring cloud resources
d) Securing user endpoints
Answer: c) Monitoring cloud resources

15. What are the desired features of a cloud computing environment?
a) Limited scalability and elasticity
b) High upfront costs and complexity
c) On-demand self-service and resource pooling
d) Fixed resource allocation and manual provisioning
Answer: c) On-demand self-service and resource pooling

16. What type of service model allows users to run their own applications on cloud infrastructure without worrying about managing the underlying hardware?
a) Infrastructure as a Service (IaaS)
b) Platform as a Service (PaaS)
c) Software as a Service (SaaS)
d) Function as a Service (FaaS)
Answer: b) Platform as a Service (PaaS)

17. What term is used to describe the practice of using both public and private clouds in combination?
a) Multicloud
b) Hybrid cloud
c) Cluster computing
d) Fog computing
Answer: b) Hybrid cloud

18. What is one of the key characteristics of cloud computing that distinguishes it from traditional IT model s?
a) High upfront capital costs
b) On-demand self-service
c) Limited scalability
d) Manual resource provisioning
Answer: b) On-demand self-service

Unit III: Understanding Cloud Architecture (Chapter 6-7)

19. Which layer of cloud computing architecture involves managing the physical data centers and network ing hardware?
a) Cloud infrastructure
b) Cloud platform
c) Cloud services
d) Cloud hypervisor
Answer: a) Cloud infrastructure

20. What is the primary purpose of capacity planning in cloud architecture?
a) Balancing system resources
b) Optimizing network protocols
c) Managing virtual machines
d) Ensuring data security
Answer: a) Balancing system resources

21. Cloud bursting architecture is used for what purpose?
a) Expanding cloud provider offerings
b) Extending private cloud resources to a public cloud
c) Reducing data center energy consumption
d) Enhancing cloud security protocols
Answer: b) Extending private cloud resources to a public cloud

22. What does QoS stand for in the context of cloud middleware?
a) Quality of Service
b) Quick Online Support
c) Quantum Operating System
d) Query and Operations System
Answer: a) Quality of Service

23. What is data migration in the context of cloud computing?
a) Migrating physical servers to the cloud
b) Moving data between cloud providers
c) Transitioning from a public cloud to a private cloud
d) Replicating data within a single data center
Answer: b) Moving data between cloud providers

24. What does SLA stand for in the context of cloud computing?
a) Service Level Agreement
b) Secure Load Allocation
c) System Level Authentication
d) Storage Location Analysis
Answer: a) Service Level Agreement

25. What architectural component in cloud computing deals with dynamic failure detection and recovery?
a) Cloud bursting architecture
b) Disk provisioning architecture
c) Capacity planning
d) Dynamic failure detection and recovery architecture
Answer: d) Dynamic failure detection and recovery architecture

26. What is the primary focus of cloud platform management?
a) Managing physical servers

b) Optimizing network protocols
c) Monitoring cloud resources
d) Providing development tools and services
Answer: d) Providing development tools and services

27. Which type of cloud deployment model is characterized by the use of resources shared by multiple or ganizations?
a) Public cloud
b) Private cloud
c) Hybrid cloud
d) Community cloud
Answer: d) Community cloud

28. In cloud computing, what is the purpose of a load balancer?
a) To secure data at rest
b) To distribute incoming network traffic across multiple servers
c) To manage cloud service agreements
d) To automate data migration
Answer: b) To distribute incoming network traffic across multiple servers

29. Which layer of cloud computing architecture involves the delivery of cloud services to end-users over t he internet?
a) Cloud infrastructure
b) Cloud platform
c) Cloud services
d) Cloud hypervisor
Answer: c) Cloud services

30. What is the primary goal of cloud resource monitoring and management?
a) To maximize upfront hardware costs

b) To ensure data privacy and security
c) To optimize resource utilization and performance
d) To restrict access to cloud services
Answer: c) To optimize resource utilization and performance

31. Which of the following is NOT a characteristic of cloud computing?
a) Scalability
b) On-demand self-service
c) High upfront costs
d) Resource pooling
Answer: c) High upfront costs

32. What is the primary purpose of virtualization technology?
a) To enhance gaming performance
b) To enable resource sharing
c) To reduce network latency
d) To encrypt data
Answer: b) To enable resource sharing

33. What does VLAN stand for?
a) Very Large Area Network
b) Virtual Local Area Network
c) Virtual Logical Area Network
d) Visual Local Access Network
Answer: b) Virtual Local Area Network

34. What is the primary advantage of using VLANs?
a) Faster internet speed
b) Enhanced security
c) Reduced hardware costs
d) Improved gaming performance
Answer: b) Enhanced security

35. In the context of virtualization, what is a hypervisor?
a) A hardware component
b) A virtual private network
c) A software that manages virtual machines
d) A type of network protocol
Answer: c) A software that manages virtual machines

36. What is a common benefit of hardware virtualization?
a) Enhanced network security
b) Increased software compatibility
c) Reduced hardware costs
d) Improved gaming performance
Answer: c) Reduced hardware costs

37. Which of the following is NOT a type of virtualization?
a) Server virtualization
b) Hardware virtualization
c) Cloud virtualization
d) Physical virtualization
Answer: d) Physical virtualization

38. Where do the roots of cloud computing trace back to?

a) 1990s
b) 2000s
c) 1970s
d) 1980s
Answer: c) 1970s

39. What is a key characteristic of cloud computing?
a) Centralized infrastructure
b) Limited scalability
c) On-demand self-service
d) High upfront costs
Answer: c) On-demand self-service

40. What type of cloud service model provides access to virtualized computing resources over the internet?
a) Infrastructure as a Service (IaaS)
b) Platform as a Service (PaaS)
c) Software as a Service (SaaS)
d) Hardware as a Service (HaaS)
Answer: a) Infrastructure as a Service (IaaS)

41. What does SaaS stand for in the context of cloud computing?
a) Software as a Service
b) Storage as a Service
c) Security as a Service
d) System as a Service
Answer: a) Software as a Service

42. What term is used to describe the practice of using both public and private clouds in combination?
a) Multicloud
b) Hybrid cloud
c) Cluster computing
d) Fog computing
Answer: b) Hybrid cloud

43. What is one of the key characteristics of cloud computing that distinguishes it from traditional IT models?
a) High upfront capital costs
b) On-demand self-service
c) Limited scalability
d) Manual resource provisioning
Answer: b) On-demand self-service

44. What does PaaS stand for in cloud computing?
a) Platform as a Service
b) Public as a Service
c) Private as a Service
d) Protocol as a Service
Answer: a) Platform as a Service

45. What is the primary focus of cloud infrastructure management?
a) Managing physical servers
b) Optimizing network protocols
c) Monitoring cloud resources
d) Securing user endpoints

Answer: c) Monitoring cloud resources

46. What is the primary goal of cloud resource monitoring and management?
a) To maximize upfront hardware costs
b) To ensure data privacy and security
c) To optimize resource utilization and performance
d) To restrict access to cloud services
Answer: c) To optimize resource utilization and performance

47. What architectural component in cloud computing deals with dynamic failure detection and recovery?
a) Cloud bursting architecture
b) Disk provisioning architecture
c) Capacity planning
d) Dynamic failure detection and recovery architecture
Answer: d) Dynamic failure detection and recovery architecture

48. Which type of cloud deployment model is characterized by the use of resources shared by multiple or ganizations?
a) Public cloud
b) Private cloud
c) Hybrid cloud
d) Community cloud
Answer: d) Community cloud

49. In cloud computing, what is the purpose of a load balancer?
a) To secure data at rest
b) To distribute incoming network traffic across multiple servers
c) To manage cloud service agreements
d) To automate data migration
Answer: b) To distribute incoming network traffic across multiple servers

50. Which of the following is NOT a layer in cloud computing architecture?
a) Infrastructure as a Service (IaaS)
b) Hardware as a Service (HaaS)
c) Platform as a Service (PaaS)
d) Software as a Service (SaaS)
Answer: b) Hardware as a Service (HaaS)