

## ✔ Congratulations! You passed!

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Grade received **100%** To pass 60% or higher

1. The infrastructure layer is the foundation of the cloud and consists of physical resources. Where do these physical resources reside?

1 / 1 point

- ☐ In a warehouse that houses a centralized mainframe server
- ☐ Compute, Storage, and Networking Resources
- ☐ Virtual Servers, Bare Metal Servers, and Serverless computing resources
- ☒ Regions, Zones, and Data Centers

✔ Correct

The physical resources of a cloud's IT infrastructure are housed in data centers, that are located with Availability Zones that are clustered within Regions.

2. Virtualization is the process of creating a software-based or virtual version of something. What is typically created with virtualization in the cloud?

1 / 1 point

- ☐ Oracle VirtualBox, VMware Workstation
- ☐ Windows, Linux, UNIX
- ☐ VMware ESX and ESXI, Microsoft Hyper-V, open-source KVM
- ☒ Servers, storage devices, networking resources, and applications

✔ Correct

Virtualization is the process of creating a software-based or virtual version of physical resources, such as Virtual Servers or VMs, and is the foundation of cloud computing.

3. Which type of Virtual Machine (VM) takes advantage of unused capacity in data centers at a much lower cost than regular VMs of similar sizes?

1 / 1 point

- ☐ Reserved virtual servers
- ☒ Transient or Spot VMs
- ☐ Shared or Public Cloud VMs
- ☐ Dedicated hosts

✔ Correct

Transient or Spot VMs offer unused capacity to users at lower costs—they deprovision and reclaim capacity as needed.

4. Why do bare metal servers take longer to provision than virtual servers?

1 / 1 point

- ☐ They're multi-tenant servers, and all tenants must help configure them
- ☒ They are physical servers that can be customized to specified capacity
- ☐ Customer configures the physical servers
- ☐ GPUs for data analytics are hard to configure and provision

✔ Correct

Bare-metal servers are physical machines and take longer to provision than virtual servers as physical resources with specified capacity may need to be configured by the cloud provider before they are made available to users.

5. Which part of a logically segmented cloud network is the main area where security is implemented?

1 / 1 point

- ☐ Load balancers
- ☐ Logical instances of networking elements
- ☐ Networking spaces
- ☒ Subnets

✓ Correct

Subnets are the smaller segments of networking spaces where cloud resources are deployed and security is implemented.

6. What benefits do runtime engines provide to containers?

1 / 1 point

- ☐ Serves as an interface between the VM and underlying physical hardware
- ☒ Share the operating system (OS) with other containers
- ☐ Allows multiple OS and applications to run simultaneously and share resources
- ☐ Uses device drivers targeting the abstract machine

✓ Correct

Runtime engine acts as a conduit to share an OS with other containers on the same computing system.

7. There are four main types of cloud storage available. Which storage type is sometimes called "Local Storage"?

1 / 1 point

- ☒ Direct Attached
- ☐ File Storage
- ☐ Block Storage
- ☐ Object Storage

✓ Correct

Direct Attached storage is sometimes referred to as 'Local Storage' because it's presented directly to a cloud-based server and is effectively either within the host server chassis or within the same rack.

8. What is File Storage sometimes called?

1 / 1 point

- ☐ Remote storage appliances
- ☒ NFS
- ☐ COS
- ☐ Ethernet

✓ Correct

File Storage is mounted to compute nodes via an ethernet network and is sometimes referred to as 'Network File Storage' or NFS.

9. Which of these statements is true of File Storage but not Object Storage? *Select two.*

1 / 1 point

- ☒ Based on the load, speed of the connecting network can be inconsistent

✓ Correct

File storage is attached via a high-speed fibre network, which makes the speed of the connecting network consistent.

- ☒ Storage is attached to compute nodes using an ethernet network

✓ Correct

File storage is attached via a high-speed fibre network

- ☐ Highly resilient and available
- ☐ Include data encryption at rest and in transit

10. Which of the following is NOT a good fit for Object Storage?

1 / 1 point

- ☐ Files or objects that are static
- ☐ Storage needs are finite and can be pre-defined
- ☐ Data that does not require fast read and write speeds
- ☒ Operating systems or applications like databases

✓ Correct

Object storage is not suitable for running operating systems, databases, or anything else where the contents of the file changes.

11. What is a standard tier bucket in Object Storage typically used for?

1 / 1 point

- ☒ Storing objects that are frequently accessed
- ☐ Storing data that is typically accessed only once or twice a year
- ☐ Supporting applications that need consistent fast access to disk, such as databases
- ☐ Storing objects that are only accessed once or twice a month or less

✓ Correct

A standard tier bucket is where you would store frequently accessed objects. This tier tends to have the highest per gigabyte cost associated with it.

12. What is a Content Delivery Network (CDN)?

1 / 1 point

- ☒ A distributed server network
- ☐ A network link
- ☐ A network node
- ☐ Network topology

✓ Correct

A CDN is a distributed server network that delivers temporarily stored or cached copies of website content to users based on the user's geographic location.