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1. In the US National Institute of Standards and Technology (NIST) definition of "cloud computing," what does the statement "shared pool of configurable computing resources" include? **1 / 1 point**

- Leverage cloud services over the open internet on hardware owned by the cloud provider
- Data security, associated with loss or unavailability of data causing business disruption
- Five essential characteristics, three deployment models, three service models
- Networks, servers, storage, applications, and services

Correct
Correct! Networks, servers, storage, applications, and services are all recognized as computing resources that can be configured as needed and shared.

2. What two tasks do hypervisors accomplish? (Select two.) **1 / 1 point**

- Separates VMs logically and assigns each a share of the underlying computing power, memory, and storage.

Correct
Correct! Hypervisors logically separate virtual machines, assigning each their slice of the underlying computing power, memory, and storage, preventing the virtual machines from interfering with each other.

- [x] Enable multiple operating systems to run alongside each other, sharing the same physical computing resources.

Correct
Correct! A hypervisor is a small software layer that enables multiple operating systems to run alongside each other, sharing the same physical computing resources.

- [ ] Scale on demand to support fluctuating workloads.
- [ ] Facilitate access to analytics for multiple users to access the same data.

3. IoT, AI, Blockchain, and Analytics are emerging technologies the cloud enables. Which two of the following are attributes of cloud computing that allow these technologies? **1 / 1 point**

- [ ] Cloud resources are offered in a single-tenant model
- [x] The power and scale of cloud resources

Correct
Correct! Emerging technologies such as IoT, AI, Blockchain, and Analytics generate unprecedented data. Cloud provides the scalability and processing power required to gather, store, and process this data.

- [x] Cloud offers on-demand computing

Correct
Correct! Cloud resources scale up and down in response to the workload demand, with users paying only for resources that they use. This makes it cost-viable for organizations to leverage emerging technologies on the cloud.

- [ ] Computing resources can be accessed via an internet connection

4. What is the three-way symbiotic relationship between IoT, AI, and Cloud? **1 / 1 point**

- ○ AI consumes the data produced by IoT devices

- ○ Power, scale, dynamic nature, and economics of the cloud resources
- ◉ IoT delivers the data, AI powers the insights, and both emerging technologies leverage the cloud's scalability and processing power
- ○ Making sense of the endless streams of data from IoT devices

Correct
Correct! IoT delivers the data, AI powers the insights, and both emerging technologies leveraging the cloud's scalability and processing power are the three-way relationship between IoT, AI, and Cloud.

5. Which two of the following are essential characteristics of the Cloud? (Select two.) **1 / 1 point**

- ☑ Resource pooling

Correct
Correct! Cloud resources are dynamically assigned and reassigned, according to demand, without consumers needing to concern themselves with the physical location of these resources.

- ☐ Single tenant
- ☐ Fixed fee
- ☑ On-demand self-service

Correct
Correct! Users can access cloud resources such as processing power, storage, and network using a simple interface without requiring human interaction with each service provider.

6. Is it possible to run completely different operating systems on Virtual Machines (VMs) on a single host, and what makes it possible? **1 / 1 point**

- ○ No, it is impossible. VMs are software-based versions of a single host. They cannot have different environments from one another.
- ◉ Yes, Virtualization makes it possible to have VMs, running different operating systems on a single host.

- ○ No, it is impossible. A single host can only work as one single virtual environment and can, therefore, have only one environment.
- ○ Yes, Containerization makes it possible to have VMs that are unique physical entities so that you can have completely different operating systems on them.

✓ **Correct**
Correct! Each VM works like an independent physical entity with its own Operating System, runtime environments, and applications.

7. Which two of the following options are examples of single-tenant compute environments in the Cloud? (Select two.) **1 / 1 point**

- ☐ Reserved virtual server
- ☐ Transient virtual servers
- ☑ Bare Metal servers

✓ **Correct**
Correct! Bare Metal servers are single-tenant physical hosts that offer a highly customizable environment for intensive workloads.

- ☑ Dedicated host

✓ **Correct**
Correct! Dedicated hosts offer single-tenant isolation, which means only your VMs run on a given host.

8. What makes file storage an ideal solution for scenarios where shared storage is needed? **1 / 1 point**

- ○ Its consistently high speed
- ○ File Storage is mounted to compute nodes via an ethernet network
- ◉ File storage can be mounted on multiple compute nodes at the same time
- ○ Mounted from remote storage appliances

✓ **Correct**
Correct! The ability for file storage to be mounted to multiple compute

nodes simultaneously makes it an ideal solution for shared storage requirements.

9. What are two key elements of a Hybrid Multi-cloud strategy? (Select two.) **1 / 1 point**

- [ ] A Hybrid Multi-cloud strategy embraces a mix of cloud models and services if they are from the same cloud service provider
- [ ] For seamless working, it is recommended that if you're subscribed to the infrastructure services of a cloud provider, you should subscribe to the application services provided by the same vendor.
- [x] A Hybrid Multi-cloud strategy connects an organization's on-premises private cloud and third-party public cloud into a single infrastructure

Correct
Correct! A Hybrid Multicloud strategy allows you to work across public and private clouds, behaving like they are part of the same infrastructure.

- [x] A Hybrid Multi-cloud strategy allows you to leverage the best of cloud models and services across different cloud providers so that your applications and workloads work seamlessly across multiple clouds

Correct
Correct! A Hybrid Multi-cloud implies that you can work across cloud models and service providers without being locked into a specific vendor or model.

10. What are two benefits of using microservices architecture? (Select two.) **1 / 1 point**

- [ ] Each microservice of an application needs to use the same stack and runtime environment
- [x] Components facing varied amounts of load can be scaled independently

Correct
Correct! Each component can be scaled independently, reducing the waste and cost of scaling entire applications.

- [x] Application components can be developed and updated independently of each other

  Correct
  Correct! Microservices are function-specific independent components that can be developed and updated by multiple developers working independently on the individual components.

- [ ] Each line of code for a microservice needs to be written from scratch