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**

- ○ 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
- ○ Leverage cloud services over the open internet on hardware owned by the cloud provider

Correct
These are all recognized as computing resources that can be configured as needed and shared.

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

- ☐ Facilitate access to mainframes for multiple users to access the same data storage layer.
- ☑ Enable multiple operating systems to run alongside each other, sharing the same physical computing resources.

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

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

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

- ☐ Scale on demand to support fluctuating workloads.

3. What are some of the cloud benefits that make it lower-risk for enterprises to adopt cloud? *Select two.* **1 / 1 point**

- [x] The pay-as-you-go model allows enterprises to experiment with technologies as opposed to making long-term decisions based on little or no trial.

  Correct
  Renting by the hour as opposed to the huge upfront cost of investing and re-investing in hardware and software makes cloud adoption a low-risk option for enterprises.

- [ ] Data security associated with loss or unavailability of data causing business disruption
- [x] The speed with which applications can be up and running on the cloud versus months on traditional platforms, means enterprises can experiment, fail fast, learn, and course correct without setting them back significantly.

  Correct
  The speed and productivity provided by the cloud make cloud adoption lower-risk for enterprises.

- [ ] Diversity of standardization in how the constantly evolving technologies integrate and interoperate.

4. Which of these are full-service cloud platforms? **1 / 1 point**

A. IBM Cloud

B. Amazon Web Services

C. Google Cloud Platform

D. Microsoft Azure

- ( ) A, B, and C only
- ( ) A only
- ( ) A and B only
- (•) A, B, C, and D

Correct
IBM, AWS, Google Cloud Platform, and Microsoft Azure—all provide full-service cloud offerings.

5. An IBM Institute for Business Value study says that more than three-quarters of enterprises today are using cloud computing to expand into new industries. What additional benefits do organizations find when adopting the cloud: **1 / 1 point**

- (●) Improve customer experience and create enhanced products and services
- ( ) Lengthen product lifecycles to ensure higher quality offerings
- ( ) Continue making expensive decisions because it often worked in the past
- ( ) Avoid having to fail at all

Correct
Cloud enables businesses to respond quickly to marketplace changes, use analytics to understand customer experience, and to apply that understanding to adapt their products and service from what they learn.

6. What are some of the results companies like Bitly, American Airlines, UBank, and ActivTrades achieve with cloud adoption? **1 / 1 point**

A. Better customer service

B. Remove barriers to innovation

C. Demand for enterprise scale

D. Accelerating growth

- ( ) C and D only
- ( ) B and D only
- ( ) A and B only
- (●) A, B, C, and D

Correct
All are correct.

7. IoT, AI, Blockchain, and Analytics are emerging technologies enabled by the cloud. What are some of the attributes of cloud computing that enable these technologies? *Select two.* **1 / 1 point**

- [ ] Cloud resources are offered in a single-tenant model
- [ ] Computing resources can be accessed via internet connection
- [x] Cloud offers on-demand computing

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.

- [x] The power and scale of cloud resources

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

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

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

Correct
This is the three-way relationship between IoT, AI, and Cloud.

9. What is the three-way relationship between blockchain, AI, and the Cloud? **1 / 1 point**

- (●) Blockchain provides the trusted, decentralized source of truth, AI powers the analytics and decisions made from the collected data, and cloud provides the globally distributed, scalable, and cost-efficient computing resources to support both technologies.
- ( ) Lends trust and transparency to AI by recording the data and variables that go into a decision made in an AI algorithm.
- ( ) Globally distributed, scalable, and cost-efficient computing resources.
- ( ) Blockchain provides an immutable network allowing members to view only those transactions that are relevant to them.

Correct
This is the mutually beneficial, three-way relationship between Blockchain, AI, and Cloud.

10. Which of these are essential characteristics of the Cloud? *Select two.* **1 / 1 point**

- [ ] Single-tenant
- [ ] Fixed fee
- [x] On-demand self-service

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

- [x] Resource pooling

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