✓ **Congratulations! You passed!**

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1. What are the key elements of a Hybrid Multicloud strategy? *Select two.*

   1 / 1 point

   ☐ 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.

   ☑ Connects an organization's on-premise private cloud and third-party public cloud into a single infrastructure

   > ✓ **Correct**
   > Hybrid Multicloud strategy allows you to work across public and private clouds behaving as if they are part of the same infrastructure.

   ☑ 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**
   > Hybrid Multicloud implies that you have the flexibility to work across cloud models and service providers without being locked-in to a specific vendor or model.

   ☐ Embraces a mix of cloud models and services as long as they are from the same cloud service provider

2. What are some of the benefits of using microservices architecture? *Select two.*

   1 / 1 point

   ☑ Application components can be developed and updated independently of each other

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

   ☐ Each microservice of an application needs to use the same stack and runtime environment

   ☑ Components facing varied amounts of load can be scaled independently

   > ✓ **Correct**
   > Each component can be scaled independently, reducing the waste and cost associated with having to scale entire applications.

   ☐ Each line of code for a microservice needs to be written from scratch

3. Serverless might not be the best fit for all applications or scenarios. Which of these attributes qualify an application for a serverless architecture?

   1 / 1 point

   ○ Low-latency applications

   ○ Workloads characterized by long-running processes

   ● Microservices that can be built as functions that are stateless

   ○ Workloads and applications that may be spread across multiple cloud environments and cloud vendors

   > ✓ **Correct**
   > This characteristic ensures the application is aligned with serverless architecture patterns.

4. What are the characteristics of a cloud native application?

   1 / 1 point

   ● Collection of microservices working together as a whole to comprise an application

   ○ Collection of microservices that need to be scaled and updated in relation to each other

   ○ Collection of microservices that are built as one huge piece of software

   ○ Collection of microservices with tightly coupled UI, business logic layer, and data layer

   > ✓ **Correct**
   > A cloud native application consists of microservices working together as independent units of software working as a whole.

working as a whole.

5. DevOps' tools, practices, and processes are helping tackle some of the complexities and challenges posed by the cloud. *Identify two* ways in which DevOps is mitigating these challenges.

1 / 1 point

☐ DevOps processes outline the development principles that need to be followed to modernize monolithic applications to cloud native applications

☑ By fully automating the infrastructure installation process in a way that is documented, repeatable, verifiable, and traceable

✓ **Correct**
DevOps best practices make it possible to programmatically provision servers, build middleware, install application code, and fully automate the installation process.

☑ By creating an automated deployment pipeline

✓ **Correct**
The DevOps' practices of continuous integration and continuous deployment help create a fully automated deployment pipeline that tackles the complexities involved in application deployment.

☐ DevOps best practices eliminate the need to provision servers, build middleware, and install application code

6. Cloud adoption is an integral part of application modernization. What are the other two important components of modernization?

1 / 1 point

⦿ Microservices and DevOps

◯ Monolithic Architectures and Physical Servers

◯ Service Oriented Architecture and Waterfall Methodology

◯ VMs and Agile Methodology

✓ **Correct**
Correct, the three key transformations that drive application modernization are cloud adoption, microservices architecture, and DevOps.

7. One of the key characteristics of Hybrid Multicloud is portability. What does portability mean in the context of Hybrid Cloud?

1 / 1 point

◯ A workload running on the private cloud can leverage the additional public cloud capacity when there is a spike in demand

◯ Distributing a single application across multiple providers allowing you to move application components across cloud services and vendors as needed

◯ The public and private cloud services can understand each other's APIs, data formats, forms of authentication and authorization

⦿ The flexibility to move applications and data between systems and cloud service providers

✓ **Correct**
Since you're no longer locked-in with a specific vendor, you can move applications and data not just between on-premise and cloud systems, but also between cloud service providers.

8. What is an attribute that distinguishes serverless computing from other compute models?

1 / 1 point

◯ End users pay for resources as long as they are running, even if idle

◯ In the serverless computing environment, resources cannot be scaled up or down

⦿ The serverless model requires no provisioning of servers, installation of application stacks, or operation of the infrastructure by the users/developers

◯ Serverless computing does not require any underlying servers for executing workloads

✓ **Correct**
The serverless model does require all these activities to be performed, but they are performed by the cloud service provider, not the developers. Serverless completely abstracts the infrastructure away from developers.

9. Which one of these statements is NOT true of a microservices architecture approach?

1 / 1 point

○ When one of the microservices of an application stops to function, it disrupts the functioning of the complete application

○ Developers can leverage the vast amounts of code already available as the base of an application, eliminating the need to develop code from scratch

○ Microservices find one another using service discovery, which creates a roadmap for microservices to communicate

○ Microservices breakdown large applications into their core functions to create a fully functional application

⊘ **Correct**
Containers are plug-and-play, so if one microservice isn't working for an application, developers can take it out and put in a different one without disrupting how the rest of the app functions.

10. Which one of the following statements does NOT describe the DevOps approach and process?   `1 / 1 point`

○ Defines how people work together to build, deploy, and manage applications in a cloud native environment

⦿ Eliminates the need to provision servers, build middleware, and install application code

○ Uses automated tools to monitor the performance and availability of their applications

○ A collaborative approach where business owners and development, operations, and quality assurance teams collaborate to deliver software continuously

⊘ **Correct**
DevOps does not eliminate, rather automates the process to programmatically provision servers, build middleware, and install application code.