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Time taken 19 mins 14 secs

Marks 6.67/10.00

Grade **6.67** out of 10.00 (**67%**)

Question **1**

Correct

Mark 0.40 out of 0.40

The role of the hypervisor is to:

- ☒ translate and limit instructions
- ☐ manage users
- ☒ create and manage guest machines
- ☐ encrypt disk



Your answer is correct.

The correct answers are:

create and manage guest machines,

translate and limit instructions

Question 2

Incorrect

Mark 0.00 out of 0.40

In a cloud environment horizontal scaling means that:

- ☒ it can scale infinitely
- ☐ it is compatible with any application architecture
- ☐ it requires load balancers
- ☒ it modifies existing VMs



Your answer is incorrect.

The correct answers are:

it can scale infinitely,

it requires load balancers

Question 3

Partially correct

Mark 0.20 out of 0.40

Which are two effective measures to improve infrastructure security?

- ☒ MFA for the users
- ☐ Reduce the attack surface as much as possible
- ☒ MFA for the development team
- ☒ Implement OAuth 2.0



Your answer is partially correct.

You have selected too many options.

The correct answers are:

MFA for the development team,

Reduce the attack surface as much as possible

Question **4**

Correct

Mark 0.40 out of 0.40

Which of the following is not an Integration Service for cloud?

- ☐ API Gateways
- ☐ publish/subscribe services
- ☒ shared memory
- ☐ workflow services
- ☐ queues



Your answer is correct.

The correct answer is:
shared memory

Question **5**

Correct

Mark 0.40 out of 0.40

Why would be concerned with the API design in the context of the cloud?

- ☐ Because cloud systems work best with REST APIs
- ☒ Because the microservices architecture is adopted more frequently
- ☒ Because SaaS products, which are growing in popularity, usually offer APIs



Your answer is correct.

The correct answers are:
Because SaaS products, which are growing in popularity, usually offer APIs,
Because the microservices architecture is adopted more frequently

Question **6**

Correct

Mark 0.40 out of 0.40

When choosing cloud services, the price plan can be:

☒ Tiered☐ Transaction-based☒ Fixed☒ Dynamic

Your answer is correct.

The correct answers are:

Fixed,

Tiered,

Dynamic

Question **7**

Partially correct

Mark 0.27 out of 0.40

What characterizes resource-oriented APIs?

Select one or more:

☒ Fits better for public APIs☐ The behavior of the system is primarily driven by the data☒ Usually leads to a concise set of operations☐ Usually leads to strong coupling

Your answer is partially correct.

You have correctly selected 2.

The correct answers are:

Usually leads to a concise set of operations,

The behavior of the system is primarily driven by the data,

Fits better for public APIs

Question 8

Correct

Mark 0.40 out of 0.40

Which of the following is the availability formula used in cloud environments?

- ☒ availability= $\text{uptime}/(\text{downtime}+\text{uptime})$
- ☐ availability= $\text{uptime}/\text{downtime}+\text{uptime}$
- ☐ availability= $\text{uptime}/\text{downtime}$
- ☐ availability= $\text{uptime}/\text{uptime}+\text{downtime}$



Your answer is correct.

The correct answer is:

availability= $\text{uptime}/(\text{downtime}+\text{uptime})$

Question 9

Partially correct

Mark 0.13 out of 0.40

Which of the following components are not managed by the cloud provider in a Infrastructure as a Service model?

- ☒ Application
- ☐ Operating System
- ☒ Storage
- ☒ Data
- ☐ Networking



Your answer is partially correct.

You have correctly selected 2.

The correct answers are:

Application,

Data,

Operating System

Question **10**

Correct

Mark 0.40 out of 0.40

A resilient system is one that is:

- ☒ self healing
- ☐ self managed
- ☒ adaptive
- ☐ self contained
- ☒ predictable



Your answer is correct.

The correct answers are:

adaptive,
self healing,
predictable

Question **11**

Incorrect

Mark 0.00 out of 0.40

What is the shared responsibility model?

- ☐ A framework for finding out the optimal security approach
- ☒ A model describing the responsibility within a development team
- ☐ A model describing the responsibility of the cloud provider and the customer with regards to security
- ☐ A requirement for the ISO 27001 standard



Your answer is incorrect.

The correct answer is:

A model describing the responsibility of the cloud provider and the customer with regards to security

Question **12**

Partially correct

Mark 0.20 out of 0.40

Which of the following are HTTP idempotent methods?

☒ POST☒ DELETE☐ HEAD☒ PUT☒ GET

Your answer is partially correct.

You have correctly selected 3.

The correct answers are:

GET,

HEAD,

DELETE,

PUT

Question **13**

Correct

Mark 0.40 out of 0.40

Why is loose coupling beneficial?

☒ Facilitates better maintainability and extensibility☐ Usually makes the system more scalable☐ Improves network performance☐ We should prefer strong coupling instead

Your answer is correct.

The correct answer is:

Facilitates better maintainability and extensibility

Question **14**

Incorrect

Mark 0.00 out of 0.40

The 12 Factor App is a(n)

- ☐ Methodology for building scalable and maintainable software
- ☐ Authentication application
- ☒ Framework for building microservices



Your answer is incorrect.

The correct answer is:

Methodology for building scalable and maintainable software

Question **15**

Correct

Mark 0.40 out of 0.40

Which of the following are protocols used by the internet?

- ☒ OSPF
- ☒ BGP
- ☒ IP
- ☒ RIP



Your answer is correct.

The correct answers are:

IP,

BGP,

RIP,

OSPF

Question **16**

Correct

Mark 0.40 out of 0.40

When can a service be considered serverless?

- ☒ When you don't have to provision capacity
- ☒ When you don't have to setup any infrastructure
- ☒ When the service can scale down to 0
- ☒ When you pay only for what you use



Your answer is correct.

The correct answers are:

When you don't have to setup any infrastructure,

When you don't have to provision capacity,

When you pay only for what you use,

When the service can scale down to 0

Question **17**

Correct

Mark 0.40 out of 0.40

What are CDNs good for?

- ☒ optimize costs
- ☒ improve security
- ☐ reduce resources
- ☒ improve load times



Your answer is correct.

The correct answers are:

improve load times,

optimize costs,

improve security

Question 18

Partially correct

Mark 0.27 out of 0.40

Which of the following characteristics is improved by designing and building applications in cloud environments?

☒ Scalability☒ Security

Security

Cost Efficiency

Availability

Productivity

☒ Control☒ Availability

Your answer is partially correct.

You have selected too many options.

The correct answers are: Scalability,

Security

Security

Cost Efficiency

Availability

Productivity,

Availability

Question 19

Correct

Mark 0.40 out of 0.40

Why would you consider GraphQL instead of REST?

☒ Because it has built in introspection☐ Because it is easier to cache☐ Because it scales better☒ Because we can specify which fields to fetch leading to lower data usage

Your answer is correct.

The correct answers are:

Because we can specify which fields to fetch leading to lower data usage,

Because it has built in introspection

Question **20**

Correct

Mark 0.40 out of 0.40

Infrastructure security is concerned with:

- ☐ application user
- ☒ cloud user
- ☐ operating system user
- ☐ database user



Your answer is correct.

The correct answer is:
cloud user

Question **21**

Incorrect

Mark 0.00 out of 0.40

Which is the correct order complexity wise in decreasing order for NoSQL database models?

- ☒ graph, document, columnar, key-value
- ☐ key-value, document, columnar, graph
- ☐ graph, columnar, document, key-value
- ☐ document, columnar, key-value, graph



Your answer is incorrect.

The correct answer is:
graph, columnar, document, key-value

Question **22**

Incorrect

Mark 0.00 out of 0.40

From the kubernetes terminology, we can say that a pod:

- ☒ can span multiple nodes
- ☐ is managed by the operating system
- ☐ runs one or more containers
- ☐ is the smallest deployment unit

✗

Your answer is incorrect.

The correct answers are:

is the smallest deployment unit,

runs one or more containers

Question **23**

Incorrect

Mark 0.00 out of 0.40

Which are some common concerns when working with queues?

- ☒ The message is lost if there are no consumers
- ☐ Messages might be out of order
- ☐ The same message might be delivered multiple times
- ☒ The consumers might get overloaded

✗

✗

Your answer is incorrect.

The correct answers are:

Messages might be out of order,

The same message might be delivered multiple times

Question **24**

Correct

Mark 0.40 out of 0.40

Which is the optimal approach for the least privilege principle when admin rights are required?

- ☒ Leverage features that enable just-in-time privileges
- ☐ Relax the security policies when needed
- ☐ Enable MFA
- ☐ Create a dedicated admin user used only when needed



Your answer is correct.

The correct answer is:

Leverage features that enable just-in-time privileges

Question **25**

Correct

Mark 0.40 out of 0.40

Why are serverless databases usually NoSQL?

- ☒ Because NoSQL databases usually scale better
- ☒ Because NoSQL databases are simpler (e.g. no ACID)
- ☐ Due to licensing limitations of SQL databases
- ☐ Because data is non-relational in most cases anyway



Your answer is correct.

The correct answers are:

Because NoSQL databases usually scale better, Because NoSQL databases are simpler (e.g. no ACID)

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