Planning and Configuring a Cloud Solution

**1.**

You are using the Google Cloud Price Calculator to estimate the price for App Engine. You enter one standard instance per hour and click "Add to Estimate", but price estimate does not change. What is the best reason for this?

thumb\_up

thumb\_down

A

Your usage is within the free tier.

B

App Engine instances are not billed.

C

The first five instances per hour are free.

D

The first three instances per hour are free.

**Correct Answer: A**

**Why is this correct?**

One instance per hour, or 730 instance hours per month, is within the free tier.

Video for reference: Estimating the Price of the Application

**2.**

Select the response that best describes an auto mode network for subnet creation.

thumb\_up

thumb\_down

A

Allows you to manually create subnets within predefined IP ranges

B

Automatically creates subnets in each region, each with a distinct IP range created by Google

C

Gives you complete control over the network's subnets and IP ranges

D

Automatically creates subnets using IP ranges that you specify

**Correct Answer: B**

**Why is this correct?**

When using an auto mode network, Google automatically creates subnets in each region using distinct, predefined IP ranges.

Video for reference: Reviewing Networking Options

**3.**

Which statement is **NOT** true regarding managed instance groups?

thumb\_up

thumb\_down

A

They support autohealing.

B

They should only be used when load balancing existing instances.

C

They support autoscaling.

D

The instance group is created from an instance template.

**Correct Answer: B**

**Why is this correct?**

This statement is true for unmanaged instance groups, not managed instance groups. Unmanaged instance groups should be used when managed instance groups are not suitable, such as when grouping together dissimilar instances.

Video for reference: Reviewing Compute Engine - Managed Instance Groups

**4.**

Which storage solution is a fully managed, NoSQL database built on Cloud Bigtable?

thumb\_up

thumb\_down

A

Cloud Spanner

B

BigQuery

C

Cloud Datastore

D

Cloud Storage

**Correct Answer: C**

**Why is this correct?**

Cloud Datastore is a fully managed, NoSQL database built on Bigtable. Like Bigtable, it uses a row key to look up data. It is suitable for web and mobile applications that do not require complex queries.

Video for reference: Comparing Storage Options

**5.**

Which of the following load balancers supports regional load balancing in the standard tier and global in the premium tier?

thumb\_up

thumb\_down

A

TCP Proxy

B

SSL Proxy

C

HTTP(S)

D

Network TCP/UDP

**Correct Answer: D**

**Why is this correct?**

Network TCP/UDP supports regional load balancing and and global in the premium tier. It can also preserve the client IP.

Video for reference: Reviewing Networking Options

**6.**

Which statement is **NOT** true regarding using the Google Cloud Price Calculator to estimate price?

thumb\_up

thumb\_down

A

Allows us to determine areas to cut back

B

Allows us to determine areas to rework codebase

C

Ensures services are affordable to use at scale

D

Provides a final, guaranteed price for cloud services

**Correct Answer: D**

**Why is this correct?**

The price estimates provided by Google Cloud Price Calculator are not binding or guaranteed. The actual price could differ from the estimate shown.

Video for reference: Estimating the Price of the Application

INCORRECT

**7.**

Which of the following statements are true regarding managed instance groups?

thumb\_up

thumb\_down

A

Additional instances are removed 10 minutes after they are no longer required.

B

They are not suitable for batch processing workloads.

C

They are suitable for stateful applications.

D

Additional instances are removed 15 minutes after they are no longer required.

E

They offer high availability, autoscaling, and automatic updates.

**Your Answer: D**

**Why is this incorrect?**

Additional instances that are no longer required are removed after 10 minutes, not 15 minutes.

Video for reference: Reviewing Compute Engine - Managed Instance Groups

**Correct Answer: A**

**Why is this correct?**

The number of instances in the group will grow and shrink to meet demand. Instances that are no longer required will be removed after a 10-minute stabilization period.

Video for reference: Reviewing Compute Engine - Managed Instance Groups

**Correct Answer: E**

**Why is this correct?**

Managed instance groups offer many benefits such as high availability, autoscaling, and automatic updates.

Video for reference: Reviewing Compute Engine - Managed Instance Groups

INCORRECT

**8.**

Your code needs to run in response to cloud events, you can develop in JavaScript, and you don't care about the underlying operating system. Which compute service should you use?

thumb\_up

thumb\_down

A

App Engine

B

Cloud Functions

C

Compute Engine

D

Kubernetes Engine

**Your Answer: A**

**Why is this incorrect?**

App Engine is better suited for web-based applications versus event-triggered functions.

Video for reference: Comparing Compute Options

**Correct Answer: B**

**Why is this correct?**

Cloud Functions is best for event-triggered, Node.JS-based code. It is the best solution for this use case.

Video for reference: Comparing Compute Options

INCORRECT

**9.**

Which controller uses desired state configuration and allows us to specify the number of pod instances running on a cluster?

thumb\_up

thumb\_down

A

Deployment

B

Replication

C

DaemonSet

D

CronJob

**Your Answer: B**

**Why is this incorrect?**

This is not the best response. ReplicationController ensures that a set of pods is always running.

Video for reference: Reviewing Kubernetes Engine

**Correct Answer: A**

**Why is this correct?**

Deployment controller is used to achieve a desired state of pods.

Video for reference: Reviewing Kubernetes Engine

**10.**

Which Google Cloud storage solution is suitable for unstructured data?

thumb\_up

thumb\_down

A

Cloud Storage

B

Cloud Bigtable

C

Cloud Datastore

D

Cloud Spanner

**Correct Answer: A**

**Why is this correct?**

Cloud Storage is the proper storage solution for unstructured data.

Video for reference: Comparing Storage Options

INCORRECT

**11.**

Which controller ensures that a copy of a pod runs on nodes in the cluster, allowing for node management?

thumb\_up

thumb\_down

A

CronJob

B

Replication

C

Deployment

D

DaemonSet

**Your Answer: C**

**Why is this incorrect?**

This is not the best response. Deployment controller is used to achieve a desired state of pods.

Video for reference: Reviewing Kubernetes Engine

**Correct Answer: D**

**Why is this correct?**

DaemonSet controller ensures that a copy of a pod runs on nodes in the cluster, allowing for node management.

Video for reference: Reviewing Kubernetes Engine

**12.**

Which compute service requires the most operational effort?

thumb\_up

thumb\_down

A

Compute Engine

B

Kubernetes Engine

C

App Engine

D

Cloud Bigtable

**Correct Answer: A**

**Why is this correct?**

Compute Engine requires the most operational effort. It allows us to have OS-level control.

Video for reference: Comparing Compute Options

**13.**

What is an advantage of using a flexible environment with App Engine?

thumb\_up

thumb\_down

A

More affordable

B

Can customize the runtime

C

Deploys within minutes

D

Fast startup

**Correct Answer: B**

**Why is this correct?**

A major advantage of using the App Engine flexible environment is the ability to customize the runtime.

Video for reference: Reviewing App Engine

**14.**

Compute Engine is optimal in which of the following conditions?

thumb\_up

thumb\_down

A

Workloads that do not require bulk processing

B

Containerized workloads

C

Workloads requiring high performance

D

Web-based workloads where deployment is valued over operations

E

Workloads that will use preemptible instances

F

Workloads requiring control of the operating system

**Correct Answer: C**

**Why is this correct?**

Compute Engine is optimal for workloads that require high performance.

Video for reference: Reviewing Compute Engine

**Correct Answer: E**

**Why is this correct?**

Compute Engine allows the use of preemptible instances, allowing you to utilize Google's excess compute capacity at a discounted rate.

Video for reference: Reviewing Compute Engine

**Correct Answer: F**

**Why is this correct?**

Compute Engine is optimal for workloads that require control of the operating system.

Video for reference: Reviewing Compute Engine

**15.**

Your application requires a SQL database with horizontal scaling. You don't require analytics. Select the most appropriate storage solution.

thumb\_up

thumb\_down

A

Cloud SQL

B

BigQuery

C

Cloud Bigtable

D

Cloud Spanner

**Correct Answer: D**

**Why is this correct?**

Cloud Spanner is a modern SQL database, designed for the cloud. Its managed instances are always running, and it offers horizontal scaling.

Video for reference: Comparing Storage Options

**16.**

A short-lived VM instance for temporary computing power is called:

thumb\_up

thumb\_down

A

Stateful VM instance

B

Stateless VM instance

C

Ephemeral VM instance

D

Preemptible VM instance

**Correct Answer: D**

**Why is this correct?**

A preemptible instance is a short-lived instance for temporary computing power.

Video for reference: Comparing Compute Options