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Question 1**Unattempted**

Domain : Other

For this question, refer to the Dress4Win case study:

<https://cloud.google.com/certification/guides/cloud-architect/casestudy-dress4win-rev2>

To gain low latency response time in the application, how will you improve access speed for static content such as product catalogue or images?

A. Multiregional Storage

B. Regional Storage

C. CDN

D. Dual region

Explanation:

Answer : C

Cloud CDN is a content delivery network which is used to cache static contents at one of Google's co-locations called POP(Point of Presence) which is near the user's location.

By using CDN the static contents such as images and product catalogue can be stored at CDN location which is closer to users location thus allowing for faster load time.

<https://cloud.google.com/cdn/docs/features>

Option A is incorrect because it is used to store objects in multiple regions where high availability is a top priority

Option B is incorrect because it is used to store objects within a single region

Option D is incorrect because it is used to store objects within Two regions for high availability

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Question 2

Unattempted

Domain : Other

You have been hired as Solutions Architect by a large enterprise who has recently migrated to GCP. The database warehouse team came to you as they want to know which managed service they can use for cleaning, preparing structured and unstructured data for analysis, reporting, and machine learning?

- A. Cloud Dataprep 
- B. Cloud Dataproc
- C. Cloud Dataflow
- D. Cloud Datalab

Explanation:

Answer : A

Cloud Dataprep is a serverless service that can be used for large dataset cleaning and preparing the data for analysis and reporting. It provides a GUI for cleaning and preparing the

data.

<https://www.youtube.com/watch?v=Q5GuTlgmt98>

Option B is incorrect because it is used to run Apache spark and Hadoop clusters

Option C is incorrect because dataflow is used for real-time and batch processing of data

Option D is incorrect because Datalab is used to visualize data and build machine learning models

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Question 3

Unattempted

Domain : Other

You have been hired as a Solutions Architect by a large enterprise. They are planning the migration of their on-premise application to GCP. The application ingests time-series data at low latency collected from sensors from chemical plants located across different locations. They are using Cassandra clusters as database storage and RabbitMQ as a messaging service. One of the business requirements is to maximize the use of managed services while moving to GCP. Please select services as per the business requirements

- A. Use Cloud Datastore and Pub/Sub
- B. Use Cloud Bigtable and Pub/Sub 
- C. Use Cloud Bigquery and Pub/Sub
- D. Use Dataproc and Pub/Sub

Explanation:

Answer : B

Cloud Bigtable is the best choice when you want to ingest time series data from sensors at low latency. It is a fully managed service used for large NoSQL analytical workloads.

<https://cloud.google.com/bigtable>

As they are using RabbitMQ as a messaging service on-premise and want to move to managed service while migration then Pub/Sub is a good choice.

Pub-Sub is a fully managed service which provides asynchronous service to service communication mostly used in event-driven architectures

<https://cloud.google.com/pubsub/docs/overview>

Option A is incorrect because Datastore is not ideal for where low latency is a key requirement.

Option C is incorrect because Bigquery is used for SQL data

Option D is incorrect because it is used to run Apache Hadoop and Spark clusters

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Question 4

Unattempted

Domain : Other

You are working as a Solutions Architect for a large financial firm. The data scientists team wants to run batch jobs on a nightly basis which will perform data analytics. These jobs can be disrupted or restarted and will use Spark and Hadoop clusters. Which GCP managed services will you use to keep analytics processing fast, easy, and more secure and cost-effective?

- A. Use Cloud Dataproc with preemptible compute engine option. 
- B. Run Spark and Hadoop clusters on a preemptible compute engine.
- C. Run Spark and Hadoop clusters on a standard compute engine.
- D. Use Cloud Dataproc with standard compute engine option.

Explanation:

Answer : A

As they want to run data analytics jobs which will be using Hadoop and spark clusters. Dataproc is a good option because it is a managed service based on Hadoop and spark which is used for ETL workload and data analysis.

<https://cloud.google.com/dataproc/docs>

Dataproc clusters can use [preemptible VM instances](#), which will result in huge cost saving

<https://cloud.google.com/dataproc/docs/concepts/compute/preemptible-vms>

Option B is incorrect because they want a managed service

Option C is incorrect because they want a managed service

Option D is incorrect because they want a cost-effective solution so standard compute engine is not a good choice

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Domain : Other

For this question, refer to the MountKirk Games case study: <https://cloud.google.com/certification/guides/cloud-architect/casestudy-mountkirkgames-rev2>

As per the Technical requirements of MountKirk Games which Compute Option is best suitable for them?

- A. A Single Compute instance with sustained discounts and instance property as Preemptible
- B. A Single Compute instance with sustained discounts and instance property as non-Preemptible
- C. A Managed Instance group with sustained discounts and instance property as Preemptible
- D. A Managed Instance group with sustained discounts and instance property as non-Preemptible 

Explanation:**Answer : D**

As per their technical requirement, MountKirk wants their backend Production instances to Dynamically scale Up or down based on game activity so option d is best-suited option for them and also Preemptible instances are not suitable for production workload

Option A is incorrect because MountKirk wants a scalable environment so using Single compute engine instance will not fulfill the requirement

Option B is incorrect because MountKirk wants a scalable environment so using Single compute engine instance will not fulfill the requirement

Option C is incorrect because preemptible VM is not recommended for Production workload

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Question 6**Unattempted**

Domain : Other

You have been hired as a DevSecOps Engineer by a large enterprise. They recently migrated there on-premise servers to GCP. There is a requirement that the instances running in the VPC should only send traffic to Active Directory Servers in the Same VPC and all other Outgoing Traffic should be Blocked. How will you create the firewall rules for this scenario?

- A. Create firewall rules which deny all egress traffic and Assign a priority of 100
also create a firewall rule which allows egress Traffic to Active Directory Servers and assign a priority of 1000 and apply to all instances
- B. Create firewall rules which deny all egress traffic and Assign a priority of 1000 also create a firewall rule which allows egress Traffic to Active Directory Servers and assign a priority of 100 and apply both rules to all instances
- C. Create firewall rules which deny all ingress traffic and Assign a priority of 100
also create a firewall rule which allows egress Traffic to Active Directory Servers and assign a priority of 1000 and apply to all instances
- D. Create firewall rules which deny all ingress traffic and Assign a priority of 1000 also create a firewall rule which allows egress Traffic to Active Directory Servers and assign a priority of 100 and apply both rules to all instances

Explanation:**Answer : B**

Since we need to allow egress traffic to Active Directory servers only, we will create an egress rule which has a destination IP range of Active Directory servers and Assign Low priority number because lower the number, higher the priority. The second rule to deny all egress traffic with Higher Priority Number i.e. 1000

<https://cloud.google.com/vpc/docs/using-firewalls>

Option A is incorrect because creating a deny rule for all egress traffic with priority 100 will block all traffic including Active Directory. The lower number takes the first precedence
Options C & D are incorrect because there is a requirement to all block outgoing traffic expect traffic to the active directory server, so configuring ingress rules will not work

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Question 7**Unattempted**

Domain : Other

You have been hired as DevSecOps Engineer by a large finance company. They have recently developed a sensitive application that runs on Google Compute Engine that does not have external IP. Your Instance needs to daily upload Application log files to Google Cloud storage for Logs Archival. Choose two methods for enabling access to Google Cloud storage without using external IP with Instance.

- A. Enable Google Private Access for Subnet 
- B. Create a Cloud NAT Gateway 
- C. Enable Private Google Access for Entire VPC
- D. Enable Private Services Access

Explanation:**Answer : A and B**

Enable Google Private Access for Subnet

When you enable Private Google Access for a subnet, instances in that subnet which don't have a public IP address can access Google APIs and services like Cloud Storage etc.

<https://cloud.google.com/vpc/docs/configure-private-google-access>

Create a Cloud NAT Gateway

Cloud NAT Gateway is used by instances which do not have a public IP address and requires internet access. By using a NAT gateway, instances in a private subnet can download or upload files to Cloud storage.

<https://cloud.google.com/nat/docs/using-nat>

Option C is incorrect because Private Google Access is subnet level setting

Option D is incorrect because Private services Access is used to connect the VPC network and other network owned by Google

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Question 8**Unattempted**

Domain : Other

You have been hired as a Solutions Architect by an e-commerce company which is planning full migration to GCP cloud. They have several Hadoop and Spark Clusters running on-premise which are managed by DevOps and an IT team which do data analysis work. After the data analysis is finished, the data is stored on NAS located in the same Datacenter for future use. The CTO has tasked you to reduce the Operational expenses(OPEX) while planning the migration. How will you accomplish this task?

- A. Use managed service like Dataproc with preemptible VM for data processing and GCS for storage 
- B. Use Compute VM for Hadoop & Spark clusters and GCS for storage
- C. Use managed service like Dataproc with standard VM for data processing and GCS for storage
- D. Use Compute VM for Hadoop & Spark clusters and create NAS cluster on Compute VM for storage

Explanation:

Answer : A

The use of Managed services reduces the workload on systems administrators and DevOps engineers because this will eliminate some of the work required when managing your own implementation of a platform.

Use of preemptible machines will cost significantly less than standard VMs

Operational Expenditures (OPEX): An expense that is spent on running the business such as rent, office supplies, machines and labour etc

Option B is incorrect because using Compute VM for Hadoop & Spark clusters will not eliminate the management and operational work

Option C is incorrect because using Standard VM will not reduce operational cost

Option D is incorrect because using Compute VM for Hadoop & Spark clusters will not eliminate the management and operational work

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Question 9

Unattempted

Domain : Other

You are working for an e-commerce company as a Solutions architect which is planning to migrate entire application and data to Google Cloud. As a part of the migration, you will be migrating a MySQL database of Size 200GB to Cloud. During the migration, you can have a

downtime of a few hours in non-production hrs. What method would you consider first to migrate this database to the cloud?

- A. Use the MySQL Dump utility, and copy the exported file to the GCS using gsutil 
- B. Set up a replica of the database in the cloud, synchronize the data, and then switch traffic to the instance in the cloud.
- C. Contact Database Migration Partners on Marketplace
- D. Use the MySQL Dump utility, and copy the export file to the cloud using Google Transfer Appliance

Explanation:

Answer : A

Because of the small data volume i.e. 200GB and as we can have a few hrs. downtime while migration MySQL Dump utility is the best option for performing the migration.

Option B is incorrect because we can consider downtime while migration. This option is valid when you have strict SLAs that the database should not be down for hrs.

Option C is incorrect because there is no such option

Option D is also incorrect because of the small data volume

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Question 10**Unattempted**

Domain : Other

You are working for Media Company as a Solutions Architect. There is a new requirement that the visual effects artists team requires a file share system that can be easily mounted on several Compute Engine instances for media workflow processing like video editing and video rendering which usually require common file share. Which storage solution will you use for this kind of scenario?

- A. Cloud Storage
- B. Cloud Filestore 
- C. Relational database
- D. Cloud datastore

Explanation:**Answer : B**

Cloud filestore is a fully managed network-attached storage which uses NFS protocol where multiple Linux instances can mount a common file share over a network.

<https://cloud.google.com/filestore>

Option A is incorrect because Cloud storage is object storage and cannot be mounted on compute engines

Option C is incorrect because the Relational database is used to store SQL data

Option D is incorrect because Cloud datastore is a NoSQL database

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Question 11**Unattempted**

Domain : Other

For this question, refer to the Dress4Win case study:

<https://cloud.google.com/certification/guides/cloud-architect/casestudy-dress4win-rev2>

Dress4win has asked you to recommend which option they should use to transfer the NAS to Google Cloud and also this data will be accessed once a year. What will you recommend? choose any two

- A. Google Transfer Service
- B. gsutil command-line utility
- C. Google Transfer Appliance 
- D. Third-party vendors
- E. GCS Coldline 
- F. GCS Nearline

Explanation:

Answer : C and E

Google Transfer appliance service is used when you have terabytes of data on-premise which needs to be migrated to google cloud in a fast and secure way.

As this data will be accessed once a year Coldline is best storage class option

<https://cloud.google.com/transfer-appliance>

Option A is incorrect because Transfer service is used to transfer data from other cloud providers to GCP or GCP to GCP

Option B is incorrect because gsutil is not recommended where you want to transfer large data from on-premise

Option D is incorrect because there is no such option

Option F is incorrect because data will be accessed only once a year. Nearline is suitable when you want to access data once a month

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Question 12

Unattempted

Domain : Other

You have been hired as a solutions architect by Large Finance firm. The development team is developing an application which will be hosted on Google cloud and will access the Oracle Database in its own datacenter. The Network engineers have determined that a link between the on-premises network and GCP will require an 8 Gbps connection and low latency to meet the business requirements with an SLA. Which Option you will select?

- A. Dedicated Interconnect

- B. Partner Interconnect 

- C. Cloud VPN

- D. Hybrid Interconnect

Explanation:

Answer : B

B Is right because Partner Interconnect is good up to 10Gbps and provides SLA also

<https://cloud.google.com/network-connectivity/docs/interconnect/concepts/partner-overview>

Option A is incorrect because Dedicated interconnect is suitable and cost-effective above 10Gbps

Option C is incorrect option because it is not suitable for High-speed connections where latency is a key requirement

Option D is incorrect because there is no such service

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Question 13

Unattempted

Domain : Other

You are working as Solutions Architect for Company which is running the entire application on-premise. There is a new requirement to migrate the SQL server enterprise edition to GCP which runs in the availability group for High availability in the datacenter. Which option you will choose from below which will provide less management work ahead and can also provide data redundancy?

- A. Create a Cloud SQL server instance with high availability option enabled 
- B. Create a Compute instance in the different zone within a region and install SQL server with always-on availability groups for data redundancy
- C. Create a Cloud SQL instance, by defaults it comes with high availability
- D. Create a Compute instance in a single zone with always-on availability groups

Explanation:

Answer : A

Cloud SQL is a fully managed service where Google manages all the heavy lifting work like patching, failover, backups and replication.

Cloud SQL server instance is the best choice with a high availability option enabled on it.

When you enable High Availability(regional) option, if there is an outage, your instance fails over to another zone in the region where your instance is located

There are also several licensing options available for Cloud SQL.

<https://cloud.google.com/sql/docs/sqlserver/high-availability>

Option B is incorrect because to reduce the management work ahead, we will be using managed service i.e Cloud SQL

Option C is incorrect because we need to enable the high availability option while creating Cloud SQL

Option D is incorrect because it will not provide high availability and also will not reduce management work

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Question 14

Unattempted

Domain : Other

You are working as a consultant for a company which has thousands of IoT devices installed in several chemical plants for monitoring humidity, temperature and electrochemical gas. There is a requirement to capture the data from this sensor in real-time, ingest it, run through a data processing pipeline and store it for analysis. SQL queries will be run against data for analysis and also there is a requirement for a data visualization tool that can analyze the data interactively. Which architecture you will suggest for the above requirements?

- A. Cloud IoT core, Pub/Sub, Dataproc, Bigtable, Data Lab
- B. Cloud IoT core, Pub/Sub, Dataflow, Bigquery, Data studio 
- C. Cloud IoT core, Pub/Sub, Dataprep, Biquery, Data Lab
- D. Cloud IoT core, Pub/Sub, Dataflow, Bigtable, Data studio

Explanation:

Answer : B

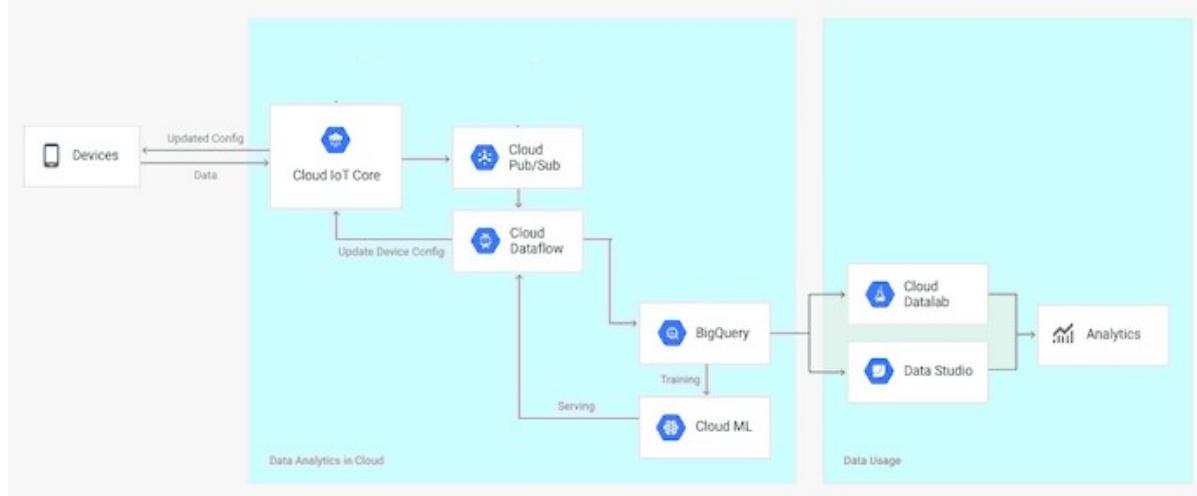
Cloud IoT core, Pub/Sub, Dataflow, Bigquery, Data studio is the correct option.

Cloud IoT Core is a fully managed service which will accept data from sensors and will manage the connection with sensors. After the data arrives at IoT core it is sent to Pub/Sub which will act as an asynchronous message bus and further this real-time data is processed by data flow and stored in Bigquery for analysis as they want to run SQL queries so Bigurey is the best choice. You can use Data studio which will use Bigquery as a source and create dashboards and reports for visualization as per requirement.

Option A is incorrect because Dataproc is used to run Hadoop and Spark clusters

Option C is incorrect because data prep is used to cleanse and prepare data for analysis and machine learning

Option D is incorrect because we want to run SQL queries against the data so BigTable is not the right choice as it is NoSQL database



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Question 15

Unattempted

Domain : Other

For this question, refer to the Dress4Win case study:

<https://cloud.google.com/certification/guides/cloud-architect/casestudy-dress4win-rev2>

As per the Executive statement, how can you optimize resource usage?

- A. Managed Instance group with preemptible machines and auto-scaling 
- B. Managed Instance group with standard machines and auto-scaling
- C. Unmanaged Instance group with standard machines and auto-scaling
- D. Unmanaged Instance group with preemptible machines and auto-scaling

Explanation:

Answer : A

For Dress4win they are moving dev and test env to cloud initially. Hence, preemptible machines should be best fit and will save some cost.

Option B is incorrect because standard machines will be costly

Options C & D are incorrect because autoscaling does not work with Unmanaged Instance group

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Question 16

Unattempted

Domain : Other

You are working for a Company as a Consultant which has recently acquired a Software Company which has their entire application on Google Cloud Platform.

There is a new requirement that the application in your GCP VPC requires RFC 1918 connectivity to VPC in the acquired GCP account. How will you create connectivity?

- A. Shared VPC
- B. VPC Peering 
- C. Cloud VPN
- D. Direct Peering

Explanation:

Answer : B

VPC peering allows two or more VPC's either they are under different organization, same project or different projects to communicate internally using RFC 1918 connectivity and all the traffic stays in google's private network

Option A is incorrect because it is used to share the VPC from the host project to service projects within an organization

Option C is incorrect because VPC peering is always preferred when you want to connect two VPC's within GCP cloud because the traffic stay's inside Google's private network

Option D is incorrect because direct peering is a connection between the on-prem network and Google's edge network

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Domain : Other

You are working for a Media company as a Solutions Architect. They are having a mobile application which is used by journalists to capture and upload images on a daily basis to the GCS bucket from a different location for any Breaking News. There is a requirement to process these file images in real-time to detect any offensive content and if there is any offensive content it should be made blur and re-uploaded to the bucket. Which services will you include in your Architecture?

- A. Cloud Functions, Cloud Vision API 

- B. Cloud functions, Cloud ML Engine
- C. App Engine, Cloud Vision API
- D. Cloud Tasks, Cloud Vision API

Explanation:

Answer : A

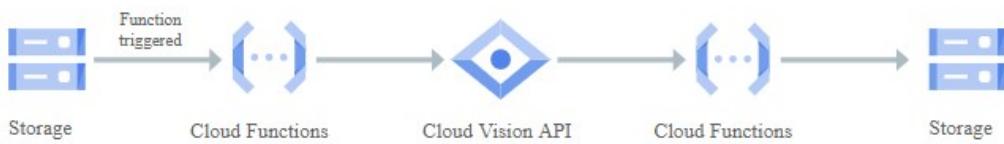
Google Cloud's Vision API is an AI service provided by GCP to detect objects in an image, detect any explicit content in images, and also can extract text from images.

As soon as the image is uploaded to the GCS bucket Cloud Function is invoked which will call Vision API and perform Offensive Image Detection operation. If any offensive image is detected another Cloud function will be called which will make the offensive content Blur using python pillow library and upload it to the same bucket.

Option B is incorrect because Cloud ML engine is used to train machine learning models

Option C is incorrect because we will need event-based service for such kind of requirement

Option D is incorrect because Cloud Tasks is a fully managed service used to manage distributed tasks.



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Question 18

Unattempted

Domain : Other

You have been hired as a Cloud Consultant for a company which is planning the migration of their entire Application and data from AWS cloud to Google Cloud Platform.

During the initial phase of migration, there is a requirement to migrate data from AWS S3 buckets to GCS bucket. One of the key requirements is that any new data which gets added to S3 bucket should be copied to GCS bucket on a daily basis until the migration is completed. How will you accomplish this task?

- A. Use Transfer Appliance
- B. Create a Linux Compute VM on GCP and schedule a cron job which will copy data on a daily basis with proper authentication
- C. Use gsutil cp cmd and run on a daily basis
- D. Use GCP Transfer Service for Cloud 

Explanation:**Answer : D**

GCP Transfer Service offers Quick transfer of data from online sources like AWS S3 and Azure Blob Storage to Cloud Storage in one simple process.

You can also create a schedule in transfer service to sync data on a daily basis

<https://cloud.google.com/storage-transfer/docs/create-manage-transfer-console#amazon-s3>

Option A is incorrect because it is used to Transfer data from on-premise to Google cloud

Option B is a possible option but GCP is having a managed service which will do most of the work for you

Option C is incorrect because you can use gsutil cmd but as per GCP, Transfer service is the best option which will do all the work in a single process.

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Question 19**Unattempted**

Domain : Other

You are working for a company which develops online games. Recently one of their online games started becoming more popular which is deployed on a compute engine. As the traffic is increasing they are struggling to provision additional instances globally for any time of the day. How will you design the architecture which will meet the demand of growing users and maintain the performance globally?

- A. Use Global Load balancer and Managed Instance Group 
- B. Use Global Load balancer and Unmanaged Instance Group
- C. Use Regional Load balancer and Managed Instance Group
- D. Use Regional Load balancer and Unmanaged Instance Group

Explanation:**Answer : A**

As the game is becoming more popular globally they should use Global load balancer and Managed instance groups deployed in several regions in multiple zones.

Using global load balancer will distribute the traffic to the managed instance group which is closer to the user automatically.

Enable autoscaling on Managed instance groups to dynamically scale up and down as the traffic increases.

Option B is incorrect because unmanaged instance group does not support autoscaling

Option C is incorrect because Regional load balancer cannot load balance managed instance group deployed in multiple regions

Option D is incorrect because unmanaged instance group does not support autoscaling

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Question 20**Incorrect**

Domain : Other

You are working for a Company which is planning to develop a new application Which will be deployed in the Frankfurt region in Europe. The company offers an online vehicle insurance service that collects user data like name, address and vehicle-related details. Which regulation must your company comply with?

- A. SOX

- ✓ B. HIPAA ✗
- C. COPPA
- D. GDPR ✓

Explanation:**Answer : D**

GDPR(General Data Protection Regulation) is regulatory compliance in Europe which is used to protect any personally identifiable information collected for business purpose within the Europe region

Option A is incorrect because SOX compliance is used for financial auditing purpose

Option B is incorrect because HIPAA is related to protecting the privacy of healthcare data in U.S

Option C is incorrect because COPPA is related to protecting the privacy of children below 13 age in the U.S

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