Architecting with Google Compute Engine Q & A
(GCP-460)

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No	Questions	Points
1	**Which of the following are valid tools for managing Google Cloud Platform resources? (Choose Two)** [x] GCP Console [x] gcloud [ ] git [ ] icloud	4 pts
2	**Which of the following commands will create a a compute instance named instance1?** (x) gcloud compute instances create instance1 ( ) gcloud compute instances new instance1 ( ) gcloud compute instance create instance1 ( ) gcloud compute instance create instance1	4 pts
3	**Which of the following commands will creagte a Cloud Storage bucket with the name bucketname20200101?** (x) gsutil mb gs://bucketname20200101 ( ) gsutil create bucket gs://bucketname20200101 ( ) gsutil new bucket gs://bucketname20200101 ( ) gsutil new instance gs://bucketname20200101	4 pts
4	**You need to manage GCP resources from your computer and decide to install the gcloud command-line tools to make this easier. What must you install on your system to do this?** (x) Cloud SDK ( ) Cloud Shell ( ) Python version 3.X ( ) GCP Console	4 pts
5	**You need to configure firewall rules for all three Virtual Private Clouds in your GCP project. The rule settings will be identical. How should this be done?** (x) Configure a firewall rule for each VPC ( ) Use the same firewall rule for all VPCs ( ) Configure two firewall rules. One for public networks and another for private networks. ( ) Configure two firewall rules. One for allow rules and another for deny rules.	4 pts
6	**You are creating three VPC Networks for the development department that will be configured for testing apps in their local region. No special subnet or IP configurations are required at this stage. What's the best and fastest strategy for getting the networks up and running?**	4 pts

	(x) Create three VPC networks using automatic subnet creation mode	
	( ) Create three VPC networks using custom subnet creation mode	
	( ) Use the default VPCs available in your project	
	( ) Use the default VPCs available but customize the firewall rules	
7	**The port numbers used in a firewall rule need to be modified. What is the best way to accomplish this?** (x) Modify the existing rule and save the changes ( ) Delete the rule and create a new one ( ) Create a new rule to update the existing one ( ) Disable the rule and create a new one	4 pts
8	**You are creating a new firewall rule that will apply only to MySQL VM instances. How should the rule be configured to ensure it does not apply to other VMs?** (x) Use the tag parameter in the rule and match it to a unique tag assigned to MySQL VMs ( ) Ensure the firewall rule only applies to TCP port 3306 for ingress operations ( ) Ensure the firewall rule only applies to TCP port 3306 for egress operations ( ) Ensure the firewall rule is applied to all networks that host MySQL VMs	4 pts
9	**You have been made a member of the Owner role at the Organization level in IAM. You are unable to delete a subnet in one of the projects that you administer. What could be the cause of this issue?** (x) The subnet still has resources in it ( ) The organization permissions are not being inherited at the project where the subnet is located ( ) The Owner role permissions have been limited at the project or VPC network level ( ) The subnet must be disabled first and then deleted	4 pts
10	**The developers from different teams need to collaborate on a project which will use VMs and other resources on the same network. They currently manage resources in separate organization projects that each team administers separately. How should the new VPC network they need be configured?** (x) Create a VPC Network in one project and share the network ( ) Create VPC Networks in each project and peer them together ( ) Create a VPC Network in one folder and share the folder ( ) Create a VPC Network in one project and share the project	4 pts
11	**You are migrating on-premises servers to GCP virtual machines. Which of the following are valid features of VM instances? (Choose Three)** [x] Resize hard-drives with no downtime	4 pts

	[x] Configure with auto-scaling	
	[x] Migrate instances with no downtime	
	[ ] disks can be sized up to 128 TB	
12	**The development team is requesting that remote access be allowed to their VMs. They will be using SSH clients for these connections to Linux systems. What protocol and port number must the firewall allow?** (x) tcp:22 ( ) tcp:3389 ( ) tcp:443 ( ) udp:3389	4 pts
13	**You need to create a managed instance group for a development project that is not mission critical. The cost should be reduced as much as possible. What type of instances will you use?** (x) Preemptible ( ) On-demand ( ) 1 year commitment ( ) 3 year commitment	4 pts
14	**You need to upgrade the CPU of one of your VMs running a web app. What must you do before performing this change?** (x) Stop the VM ( ) Reset the VM ( ) Upgrade the CPU without changing the running state ( ) Create an image and build a new VM using the new CPU settings	4 pts
15	**Which of the following methods provides the most efficient way of adding a new drive to an existing VM instance?** (x) Edit the instance and add the drive without changing the state of the VM ( ) Stop the VM and add the drive ( ) Create an image and build a new VM with the additional drive ( ) Reset the VM and add the drive	4 pts
16	**Which of the following best describes the outcome of running the following command: gcloud compute instances create instance1 --preemptible --no-boot-disk-auto-delete** (x) Create an instance named vm1 that is preemptible and keeps the boot disk when the instance is deleted ( ) Create an instance named vm1 that is not preemptible and keeps the boot disk when the instance is deleted ( ) Create an instance named vm1 that is preemptible and deletes the boot disk when the instance is deleted ( ) Create an instance named vm1 that is not preemptible and deletes the boot disk when the instance is deleted	4 pts
17	**An inexperienced administrator has created a folder in your IAM Organization and given himself permission to it without assigning access to senior level administrators. What must you do to**	4 pts

	ensure that administrators at the organization level of the IAM heirarchy still have access to the folder?	
	(x) Nothing.	
	( ) Manually assign permissions to the folder	
	( ) Delete the folder. Create it again and configure it to inherit permissions.	
	( ) Add the AllAuthenticatedUsers group to the folder and configure it to inherit permissions.	
18	A new policy allowing each of the four development teams to control access to resources they manage in GCP is being implemented. Each team has one or more projects. How can your organization heirarchy be modified to accommodate this new policy?	4 pts
	(x) At the organization level, create a folder for each team	
	( ) At the organization level, create a project for each team	
	( ) At the folder level, create a project for each team	
	( ) At the project level, create a folder for each team	
19	Which IAM role will you use to give a new administrator full control of any Compute Engine resource in his project?	4 pts
	(x) Compute Admin	
	( ) Storage Admin	
	( ) Network Admin	
	( ) Service Account Admin	
20	You currently have Viewer permissions at the Organization level in GCP. Your new responsibiities require that you create Projects for the development teams when necessary. How can you be assigned the permissions you need for the new role?	4 pts
	(x) You need to be added to the Project Creator role	
	( ) Your existing permissions allow you to create Projects	
	( ) You need to be added to the Super administrator role	
	( ) You need to be added to the Organization Admin role	
21	A new development project requires a data warehouse that can be queried using standard SQL. The database should be optimized for analysis purposes. Which of the following platforms best meets these criteria?	4 pts
	(x) BigQuery	
	( ) Cloud Spanner	
	( ) Cloud Bigtable	
	( ) Cloud Storage	
22	You will be using Cloud Storage to archive data that may be queried a few times a year. Which class of storage will best meet your needs?	4 pts
	(x) Nearline	
	( ) Coldline	
	( ) Standard (Regional)	
	( ) Standard (Multi-Regional)	

23	**A new application requires a NoSQL database that requires no administration by the developers using it. Which of the following GCP solutions will be the best choice for them?**	4 pts
	(x) Firestore	
	( ) Bigtable	
	( ) Cloud SQL	
	( ) MongoDB	
24	**To comply with new company policies, data saved in designated Cloud Storage buckets must be protected from deletion for at least 2 years. How can you enforce this policy?**	4 pts
	(x) Configure a retention policy on the designated buckets	
	( ) Delete the buckets and create new ones that have an assigned retention policy	
	( ) Enable bucket-level access control so you can assign the same rules for all files in the bucket	
	( ) Enable fine-grained access control so you can assign the same rules for all files in the bucket	
25	**You have more than 200 TB of archived data in Cloud Storage that is accessed rarely. At most, once per year. How can you reduce the cost of storing these files?**	4 pts
	(x) Classify all the archived records as Coldline	
	( ) Create a lifecycle rule to classify the archived records as Coldline after 365 days of non-use	
	( ) Create a bucket that uses a storage class of Coldline and move all the files to it	
	( ) Move the archived files to a BigQuery table where they will be automatically compressed	
26	**An on-premises MySQL database will be migrated to GCP and you need a quick solution that won't require major changes to the front-end applications that use it. Which solution is best for this scenario?**	4 pts
	(x) Cloud SQL	
	( ) Cloud Spanner	
	( ) BigQuery	
	( ) BigTable	
27	**The project lead for a mission critical database has requested a lift and shift deployment to GCP for the on-premises MySQL database it supports. They insist that no unnecessary changes be made to support legacy applications. How will you fulfill their request?**	4 pts
	(x) Choose an appropriate Compute Engine Instance and use it to deploy a customized MySQL database setup that meets their specifications	
	( ) Migrate the database to Cloud SQL and help the team to make the needed changes to take advantage of the serverless configuration	
	( ) Migrate the database to Cloud Spanner and help the team to make the needed changes to take advantage of the serverless configuration	
	( ) Migrate the database to BigTable and help the team to make the needed changes to take advantage of the serverless configuration	

28	**You need a NoSQL database supports ACID transactions. It will be used as the backend for a web application that will be used globally. Which of the following solutions will best meet your needs?**	4 pts
	(x) Firestore	
	( ) BigTable	
	( ) Cloud SQL	
	( ) BigQuery	
29	**A new company policy now requires that each development team manage its own budget and billing. Which of the following configurations will allow this policy to be implemented?**	4 pts
	(x) Create a project for each team and give each of them their own billing account	
	( ) Create a folder for each team and give each of them their own billing account	
	( ) Create a project for each team and use the same billing account for all of them	
	( ) Create a folder for each team and use the same billing account for all of them	
30	**The migration of all on-premises database clusters has been approved. The GCP project hosting the new servers must support at least 48 CPUs and 12 VMs. What must you do before the migration to support the new infrastructure?**	4 pts
	(x) Request a quota adjustment to accommodate the CPUs	
	( ) Request at least 12 permanent Internet IPs for the servers	
	( ) Create two projects to accommodate the new servers	
	( ) Create at least three projects to accommodate the new servers	
31	**You have configured a Workspace to monitor resources in a project and other development teams want the same capability. Each team must only have access to the logs for their own project(s). How should the Workspace(s) be configured?**	4 pts
	(x) Create a Workspace for each development team	
	( ) Create a Workspace for each project	
	( ) Use the existing Workspace and configure access to each assigned project appropriately	
	( ) Use the existing Workspace and the permissions assigned to each project will be inherited automatically	
32	**For the past few months, the billing costs for GCP resources has been higher than expected. You want to automatically prevent cost from exceeding a preset limit for the ABTesting2020 project. How can this be done?**	4 pts
	(x) Use a Cloud Function to automatically disable billing on the project when the budget level is reached	
	( ) Create an alert so you are notified when the budget reaches a certain level, then disable Billing on the project	
	( ) Use a Cloud Function to automatically stop or terminate all processes in the project when the budget level is reached	

	( )	Create an alert to disable the project when the budget reaches a certain level	
33	**Your existing network connects on-premises and GCP resources that belong to the same region. A new location is being added from another region and you need to automatically maintain the routing tables as subnets are added and changed. What resuorce will you add to accomplish this?**		4 pts
	(x)	Cloud Router	
	( )	Cloud VPN	
	( )	Dedicated Interconnect	
	( )	VPC Network	
34	**The new migration strategy for on-premises resources will require Internet connection links of at least 8 Gbps. Which of the following options may meet this requirement? (Choose two)**		4 pts
	[x]	Dedicated Interconnect	
	[x]	Partner Interconnect	
	[ ]	VPN Tunnel	
	[ ]	GCP Edge Point	
35	**Your team is configuring a Cloud VPN to connect the on-premises and GCP networks. Which of the following components are required for the VPN network? (Choose Three)**		4 pts
	[x]	Cloud VPN Gateway	
	[x]	VPN Gateway	
	[x]	VPN Tunnels	
	[ ]	Cloud Router	
	[ ]	Shared VPC	
	[ ]	NAT Gateway	
36	**Your company has offices in different regions. Project teams move from location to location when needed and often share resources when collaborating. How can you configure the network to allow two teams that use separate projects to share and excahnge data in their respective VPC networks?**		4 pts
	(x)	Configure VPC Peering	
	( )	Configure VPC Sharing	
	( )	Use a VPN Gateway to connect the VPC networks	
	( )	Use a NAT Gateway to connect the VPC networks	
37	**You are creating a new managed instance group to support the testing of a new application. It should add and remove instances when needed and protect against single domain failure. Which of the following configurations should you use?**		4 pts
	(x)	Use a multi-zone configuration and enable autoscaling	
	( )	Use a multi-zone configuration and disable autoscaling	
	( )	Use a single-zone configuration and enable autoscaling	
	( )	Use a single-zone configuration and disable autoscaling	
38	**A new managed instance group has been setup to manage a critical production application. How can you ensure that new instances are deployed quickly when the server load increases?**		4 pts

	(x)	Specify a target CPU utilization in the autoscaling policy	
	( )	Create an alert so you are notified when the CPU utilization reaches a specified limit so you can make adjustments	
	( )	Create an alert event to start a Cloud Function that will automatically start new instances	
	( )	Configure autoscalling to add new instances when the number of users reaches a specified number	
39	**The managed instance group supporting your web application has failed VMs that must be manually removed on a regular basis. How can you automate the removal of these failed systems?**		4 pts
	(x)	Create a health check that tests the appropriate ports on the VMs	
	( )	Use stackdriver alerts to automatically check for failed services and remove the VMs	
	( )	Use stackdriver alerts to automatically check for failed services and notify you	
	( )	Increase the numbe of active nodes in the managed instance group	
40	**You are using HTTPS load balancing for your managed instance group. How many IP addresses do you need for Internet traffic?**		4 pts
	(x)	One	
	( )	One for each region	
	( )	One for each active instance	
	( )	One for each zone	
41	**A standardized model has been agreed upon for new network infrastructure deployments that will be used by the development teams in future projects. What is the best way to deploy and edit these models?**		4 pts
	(x)	Deployment Manager	
	( )	gcloud script	
	( )	shell script	
	( )	gsutil script	
42	**You need to create templates for deploying multi-cloud infrastructure networks in GCP and AWS. Which of the following tools is best suited for this task?**		4 pts
	(x)	Terraform	
	( )	Deployment Manager	
	( )	CloudFormation	
	( )	Cloud Shell	
43	**Which of the following services will allow you to manage the configuration of VMs on AWS, Azure and GCP?**		4 pts
	(x)	Ansible	
	( )	Deployment Manager	
	( )	CloudFormation	

50	( )	Cloud Shell	
44	**You want to manage the configuration files used to deploy your GCP infrastructure using Python since all the members of your team are comfortable using it. What is the best tool to use in this scenario?**		4 pts
	(x)	Deployment Manager	
	( )	Python	
	( )	Terraform	
	( )	Ansible	
45	**You need a managed service for transforming and processing large amounts of data that will be loaded into a data warehouse. Which of the following services can accomplish this?**		4 pts
	(x)	Dataflow	
	( )	BigQuery	
	( )	Dataprep	
	( )	Bigtable	
46	**Instead of doing a lift and shift, your management team has decided to migrate existing Hadoop jobs to leverage managed GCP services. Which of the following services can replace the on-premises Hadoop clusters?**		4 pts
	(x)	Dataproc	
	( )	Dataflow	
	( )	Dataprep	
	( )	Cloud Storage	
47	**On-premises services migrated to Cloud Dataproc generate alot of data that must be stored when the services are shut down. This data is only used by Dataproc. Where should it be stored?**		4 pts
	(x)	Cloud Storage	
	( )	BigQuery	
	( )	Bigtable	
	( )	HDFS	
48	**Before migrating CSV files from Cloud Storage to BigQuery, you need to visually inspect the records and make modifications where necessary. What is the best tool for this task?**		4 pts
	(x)	Dataprep	
	( )	Dataproc	
	( )	BigQuery	
	( )	Pub/Sub	
49	**Data from many IoT devices must be processed by dataflow before it is ingested into BigQuery. What service will ensure that the data is streamed into dataflow consistently regardless of the input load?**		4 pts
	(x)	Pub/Sub	
	( )	Cloud Storage	
	( )	BigTable	
	( )	Cloud Function	
50	**Cloud dataflow is being used to process streaming data before it is loaded into a BigQuery table. It has been decided to also batch load data into BigQuery from other sources that are storing**		4 pts

them in Cloud Storage. The same processing rules used for the streaming data in dataflow will be applied. What is the best service to use for the batch process?

(x)   Dataflow

( )   Dataproc

( )   BigQuery

( )   Cloud Function