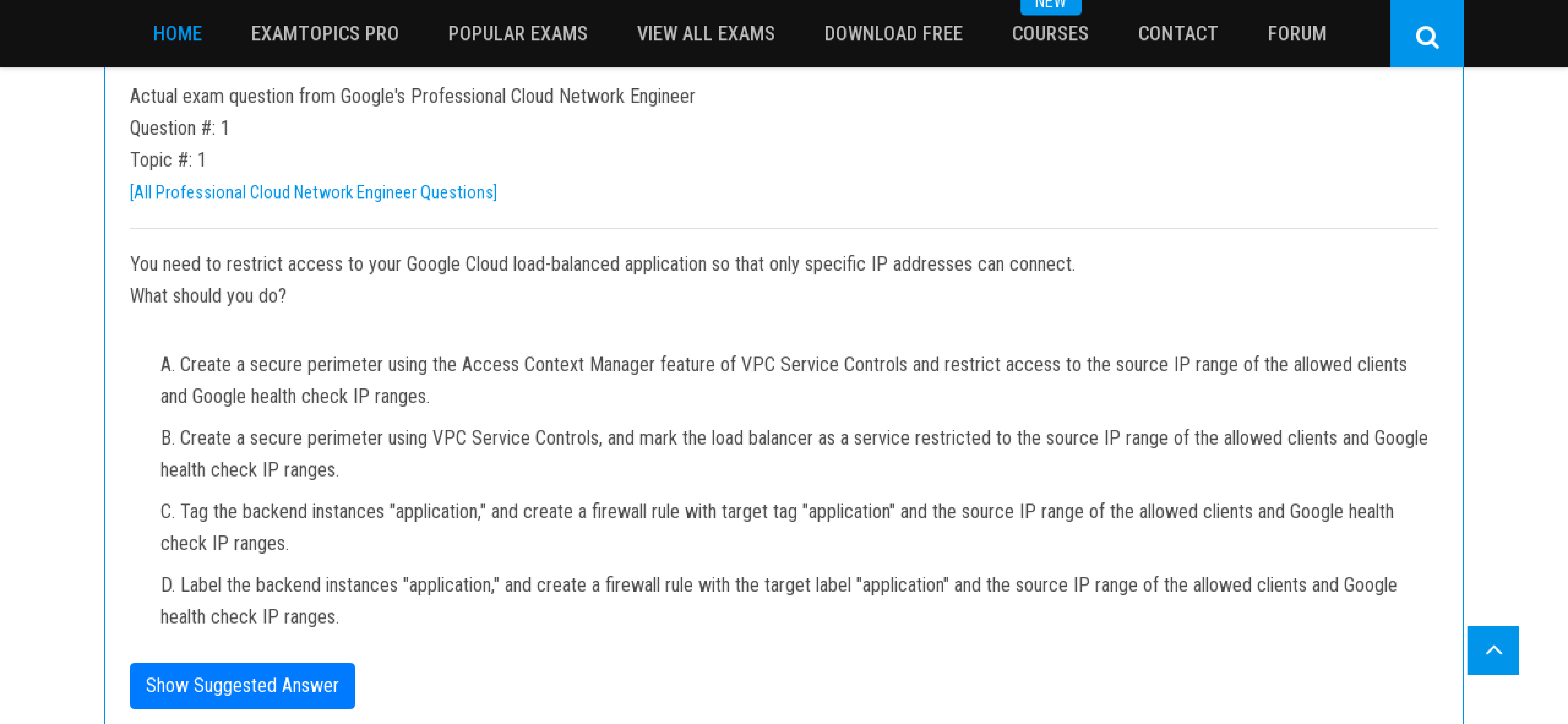


Actual exam question from Google's Professional Cloud Network Engineer

Question #: 1

Topic #: 1

[All Professional Cloud Network Engineer Questions]

You need to restrict access to your Google Cloud load-balanced application so that only specific IP addresses can connect.

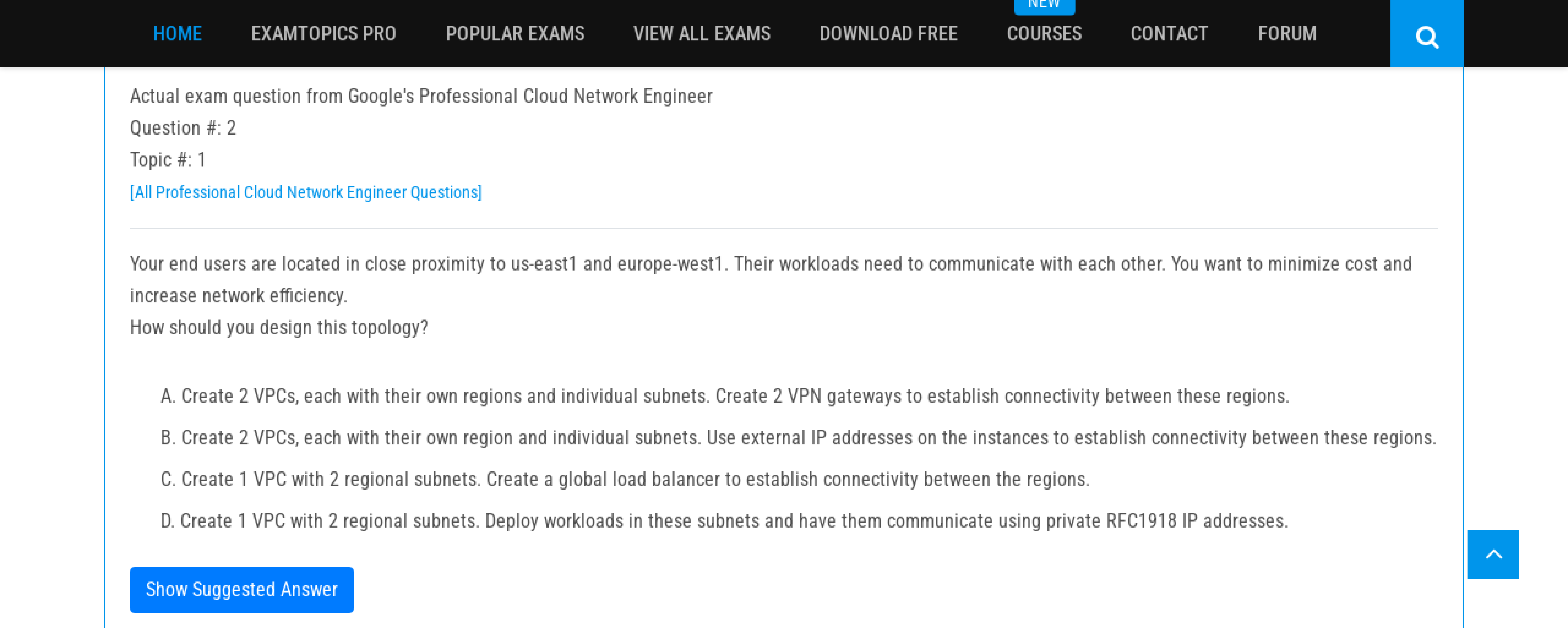
What should you do?

A. Create a secure perimeter using the Access Context Manager feature of VPC Service Controls and restrict access to the source IP range of the allowed clients and Google health check IP ranges.

B. Create a secure perimeter using VPC Service Controls, and mark the load balancer as a service restricted to the source IP range of the allowed clients and Google health check IP ranges.

C. Tag the backend instances "application," and create a firewall rule with target tag "application" and the source IP range of the allowed clients and Google health check IP ranges.

D. Label the backend instances "application," and create a firewall rule with the target label "application" and the source IP range of the allowed clients and Google health check IP ranges.



Actual exam question from Google's Professional Cloud Network Engineer

Question #: 2

Topic #: 1

[All Professional Cloud Network Engineer Questions]

Your end users are located in close proximity to us-east1 and europe-west1. Their workloads need to communicate with each other. You want to minimize cost and increase network efficiency.

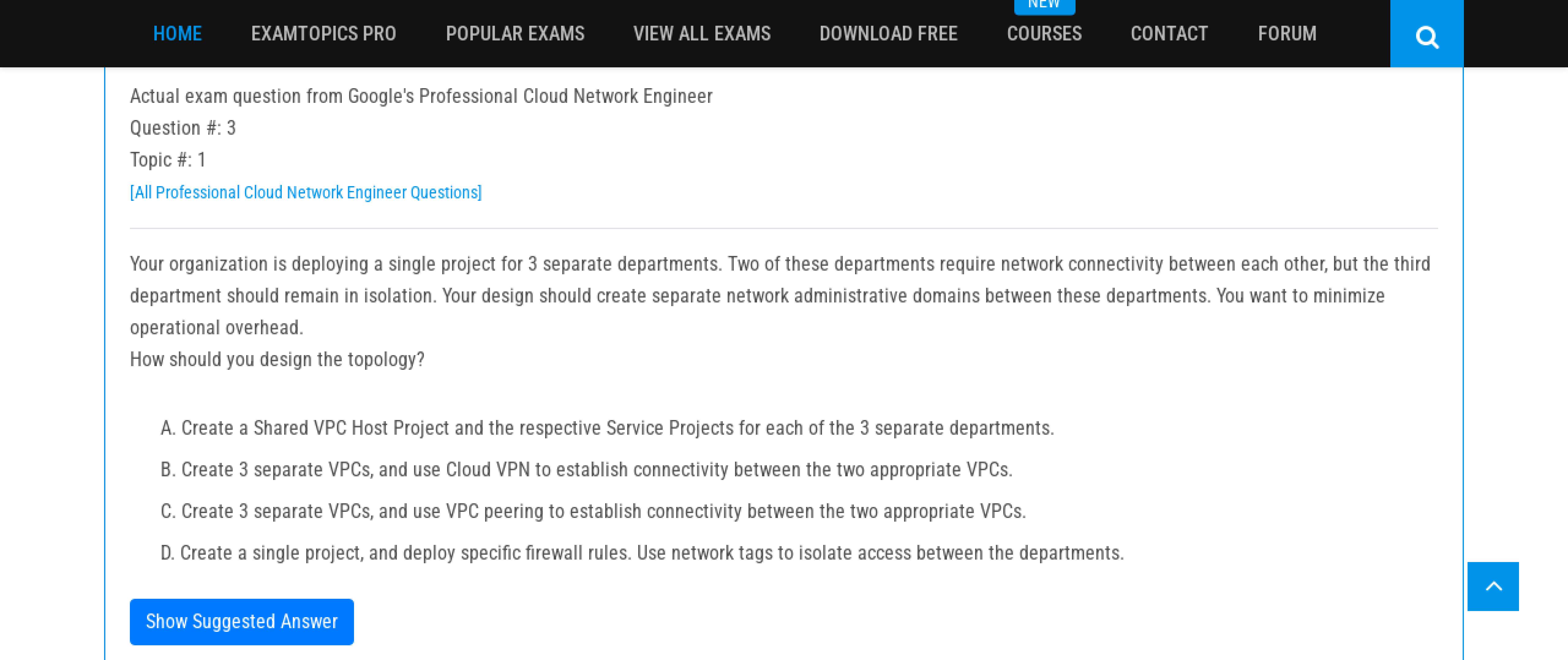
How should you design this topology?

A. Create 2 VPCs, each with their own regions and individual subnets. Create 2 VPN gateways to establish connectivity between these regions.

B. Create 2 VPCs, each with their own region and individual subnets. Use external IP addresses on the instances to establish connectivity between these regions.

C. Create 1 VPC with 2 regional subnets. Create a global load balancer to establish connectivity between the regions.

D. Create 1 VPC with 2 regional subnets. Deploy workloads in these subnets and have them communicate using private RFC1918 IP addresses.



Actual exam question from Google's Professional Cloud Network Engineer
Question #: 3
Topic #: 1
[All Professional Cloud Network Engineer Questions]

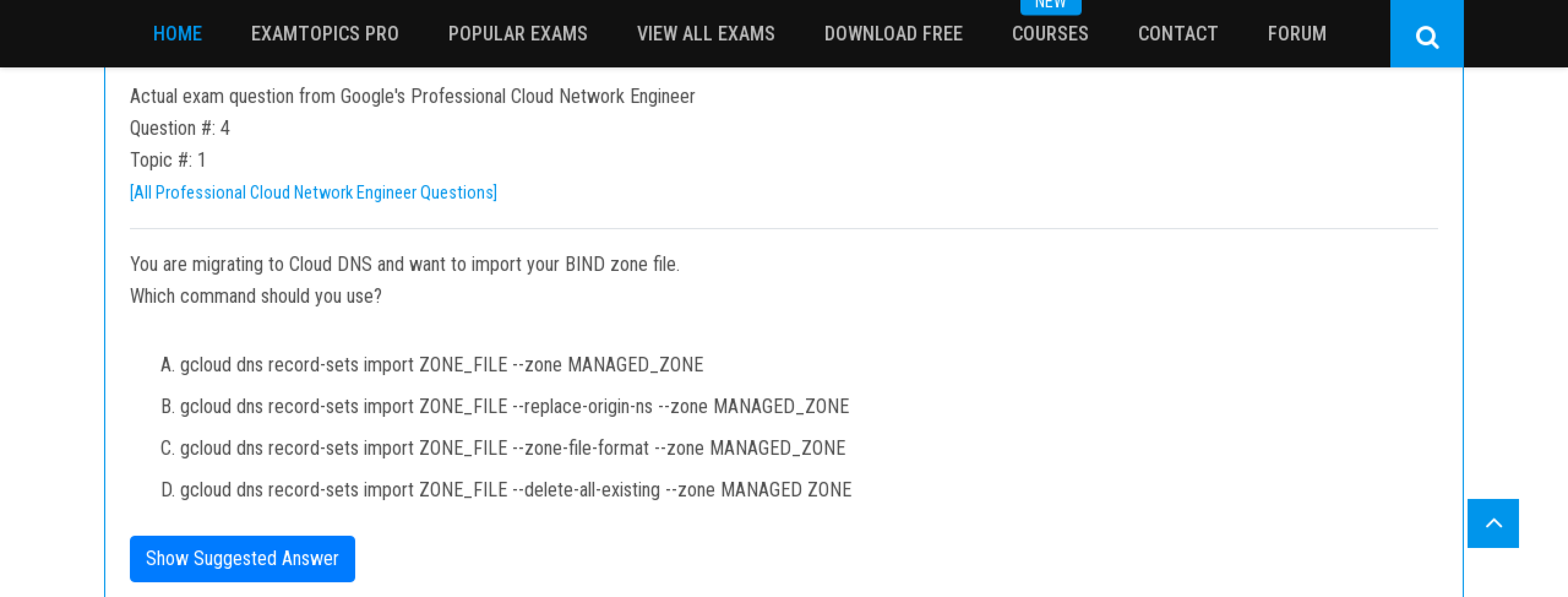
Your organization is deploying a single project for 3 separate departments. Two of these departments require network connectivity between each other, but the third department should remain in isolation. Your design should create separate network administrative domains between these departments. You want to minimize operational overhead.
How should you design the topology?

A. Create a Shared VPC Host Project and the respective Service Projects for each of the 3 separate departments.

B. Create 3 separate VPCs, and use Cloud VPN to establish connectivity between the two appropriate VPCs.

C. Create 3 separate VPCs, and use VPC peering to establish connectivity between the two appropriate VPCs.

D. Create a single project, and deploy specific firewall rules. Use network tags to isolate access between the departments.



Actual exam question from Google's Professional Cloud Network Engineer

Question #: 4

Topic #: 1

[All Professional Cloud Network Engineer Questions]

You are migrating to Cloud DNS and want to import your BIND zone file.

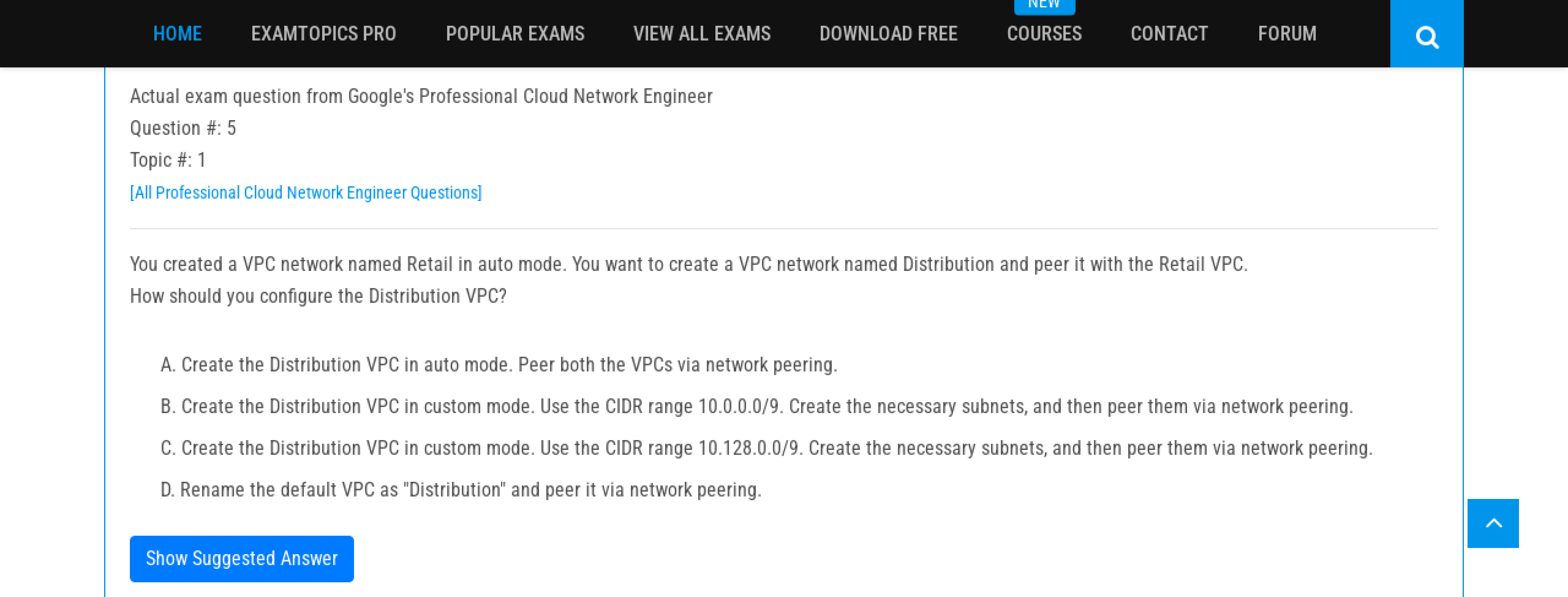
Which command should you use?

A. gcloud dns record-sets import ZONE_FILE --zone MANAGED_ZONE

B. gcloud dns record-sets import ZONE_FILE --replace-origin-ns --zone MANAGED_ZONE

C. gcloud dns record-sets import ZONE_FILE --zone-file-format --zone MANAGED_ZONE

D. gcloud dns record-sets import ZONE_FILE --delete-all-existing --zone MANAGED ZONE



Actual exam question from Google's Professional Cloud Network Engineer

Question #: 5

Topic #: 1

[All Professional Cloud Network Engineer Questions]

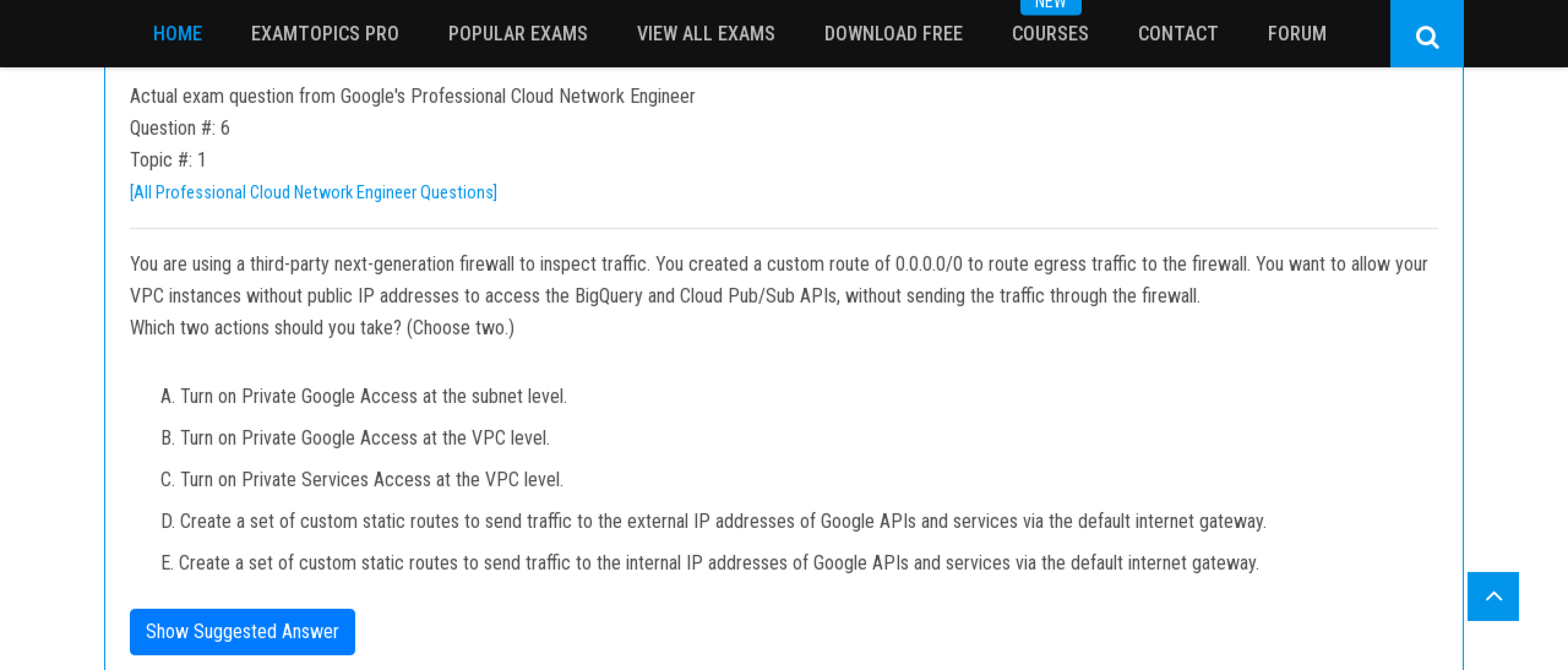
You created a VPC network named Retail in auto mode. You want to create a VPC network named Distribution and peer it with the Retail VPC.
How should you configure the Distribution VPC?

A. Create the Distribution VPC in auto mode. Peer both the VPCs via network peering.

B. Create the Distribution VPC in custom mode. Use the CIDR range 10.0.0.0/9. Create the necessary subnets, and then peer them via network peering.

C. Create the Distribution VPC in custom mode. Use the CIDR range 10.128.0.0/9. Create the necessary subnets, and then peer them via network peering.

D. Rename the default VPC as "Distribution" and peer it via network peering.



Actual exam question from Google's Professional Cloud Network Engineer

Question #: 6

Topic #: 1

[All Professional Cloud Network Engineer Questions]

You are using a third-party next-generation firewall to inspect traffic. You created a custom route of 0.0.0.0/0 to route egress traffic to the firewall. You want to allow your VPC instances without public IP addresses to access the BigQuery and Cloud Pub/Sub APIs, without sending the traffic through the firewall.

Which two actions should you take? (Choose two.)

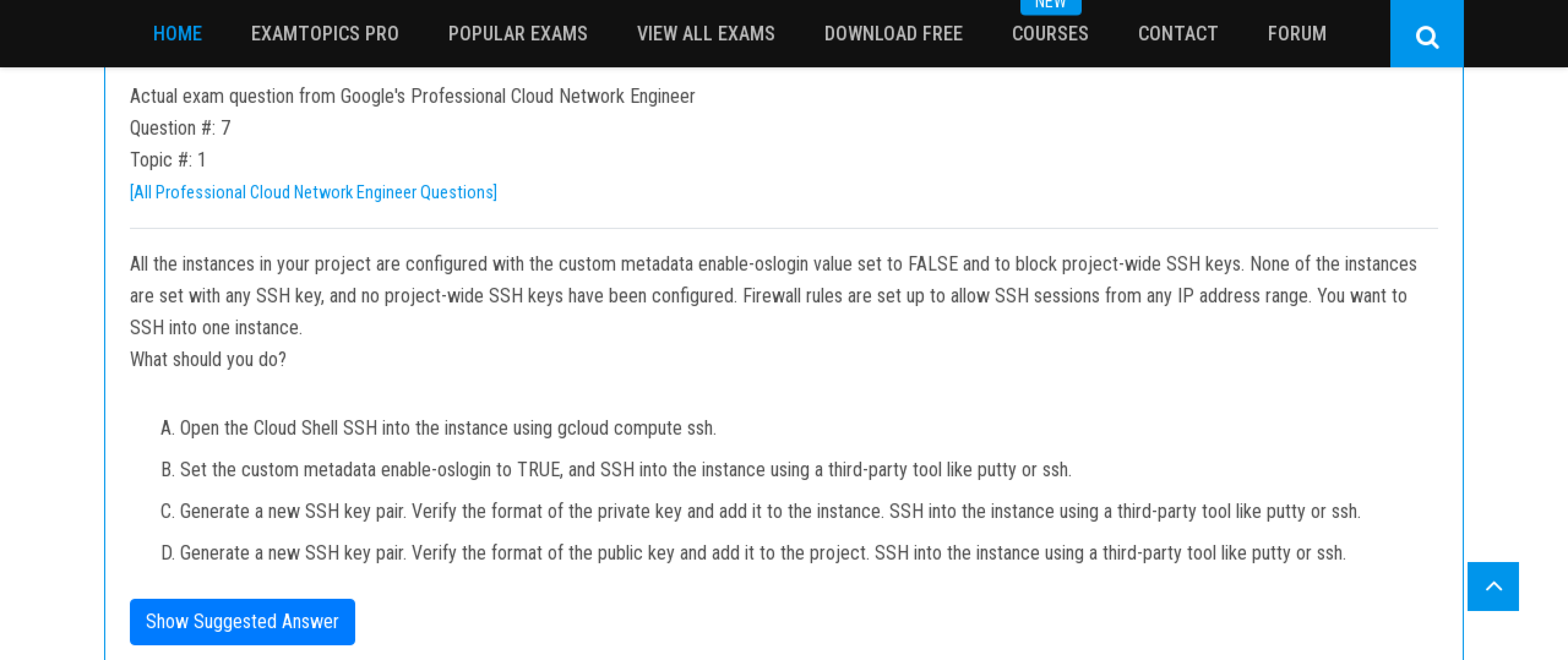
A. Turn on Private Google Access at the subnet level.

B. Turn on Private Google Access at the VPC level.

C. Turn on Private Services Access at the VPC level.

D. Create a set of custom static routes to send traffic to the external IP addresses of Google APIs and services via the default internet gateway.

E. Create a set of custom static routes to send traffic to the internal IP addresses of Google APIs and services via the default internet gateway.



Actual exam question from Google's Professional Cloud Network Engineer
Question #: 7
Topic #: 1
[All Professional Cloud Network Engineer Questions]

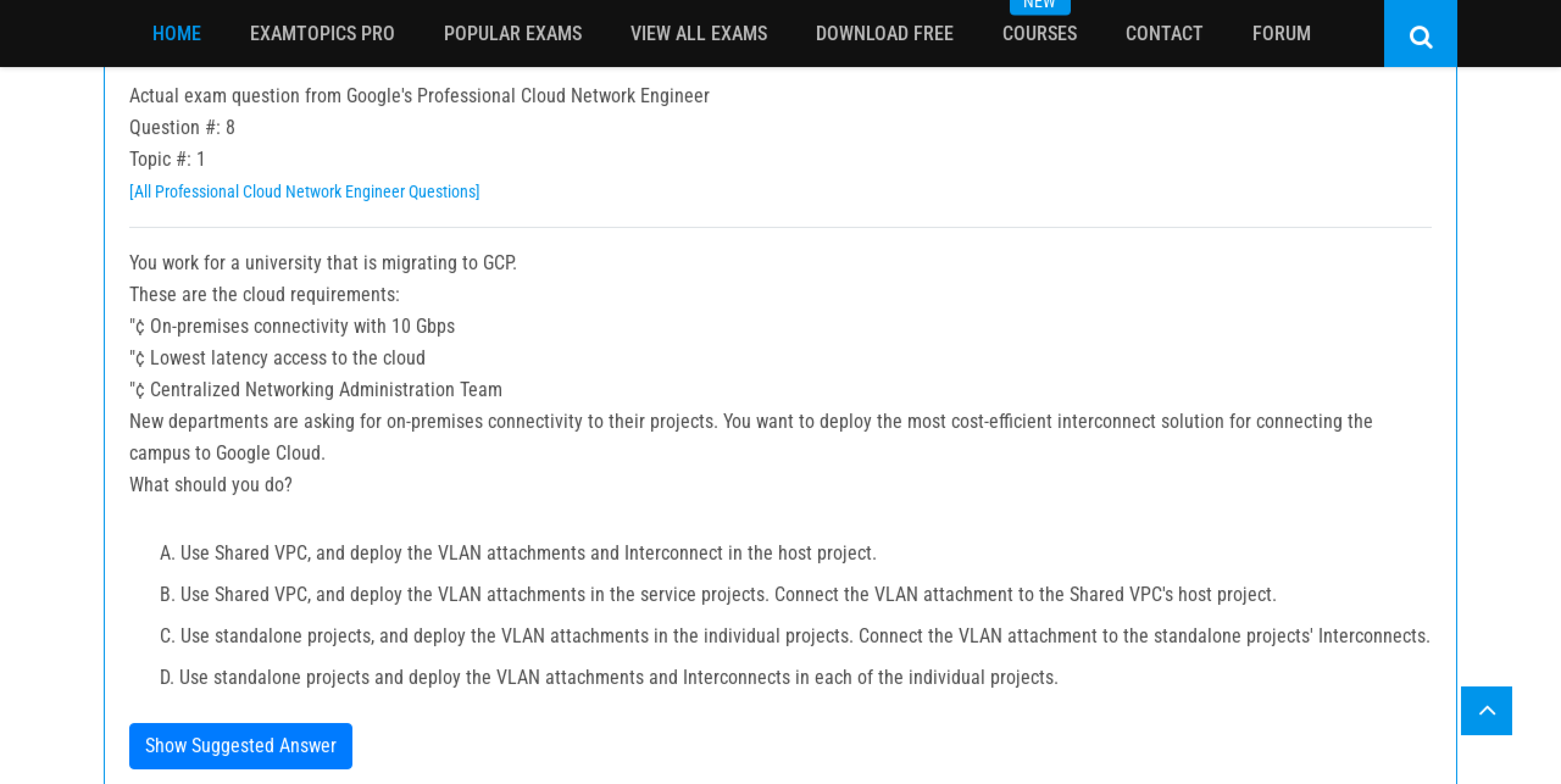
All the instances in your project are configured with the custom metadata enable-oslogin value set to FALSE and to block project-wide SSH keys. None of the instances are set with any SSH key, and no project-wide SSH keys have been configured. Firewall rules are set up to allow SSH sessions from any IP address range. You want to SSH into one instance.
What should you do?

A. Open the Cloud Shell SSH into the instance using gcloud compute ssh.

B. Set the custom metadata enable-oslogin to TRUE, and SSH into the instance using a third-party tool like putty or ssh.

C. Generate a new SSH key pair. Verify the format of the private key and add it to the instance. SSH into the instance using a third-party tool like putty or ssh.

D. Generate a new SSH key pair. Verify the format of the public key and add it to the project. SSH into the instance using a third-party tool like putty or ssh.



Actual exam question from Google's Professional Cloud Network Engineer

Question #: 8

Topic #: 1

[All Professional Cloud Network Engineer Questions]

You work for a university that is migrating to GCP.

These are the cloud requirements:

"¢ On-premises connectivity with 10 Gbps

"¢ Lowest latency access to the cloud

"¢ Centralized Networking Administration Team

New departments are asking for on-premises connectivity to their projects. You want to deploy the most cost-efficient interconnect solution for connecting the campus to Google Cloud.

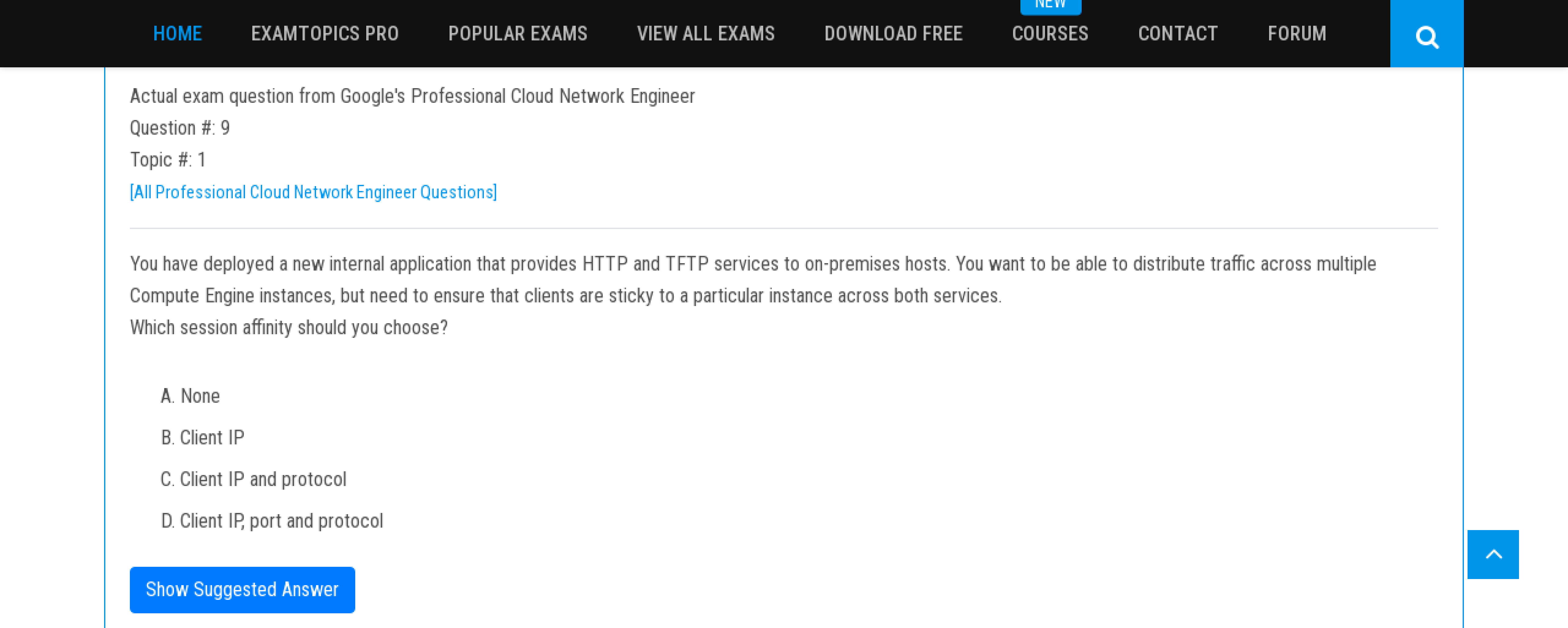
What should you do?

A. Use Shared VPC, and deploy the VLAN attachments and Interconnect in the host project.

B. Use Shared VPC, and deploy the VLAN attachments in the service projects. Connect the VLAN attachment to the Shared VPC's host project.

C. Use standalone projects, and deploy the VLAN attachments in the individual projects. Connect the VLAN attachment to the standalone projects' Interconnects.

D. Use standalone projects and deploy the VLAN attachments and Interconnects in each of the individual projects.



Actual exam question from Google's Professional Cloud Network Engineer

Question #: 9

Topic #: 1

[All Professional Cloud Network Engineer Questions]

You have deployed a new internal application that provides HTTP and TFTP services to on-premises hosts. You want to be able to distribute traffic across multiple Compute Engine instances, but need to ensure that clients are sticky to a particular instance across both services.

Which session affinity should you choose?

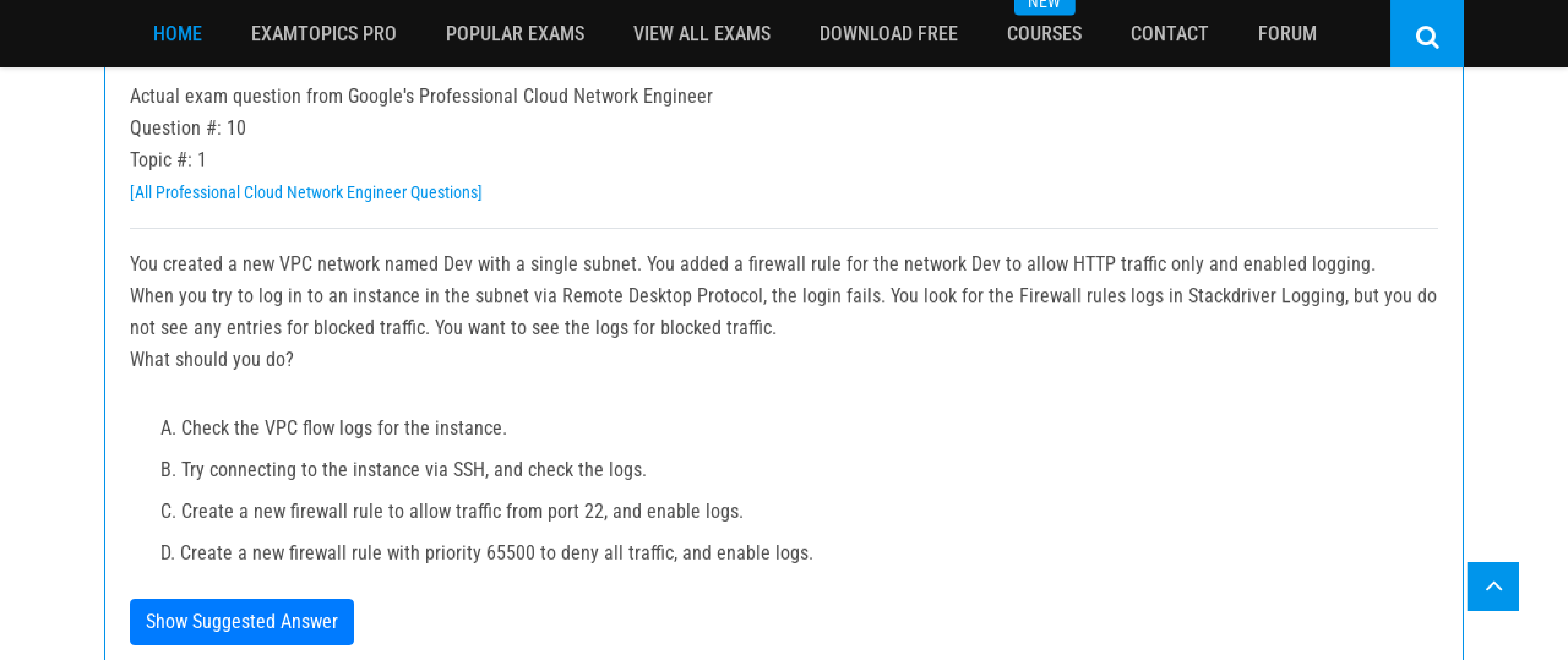
A. None

B. Client IP

C. Client IP and protocol

D. Client IP, port and protocol

Show Suggested Answer



Actual exam question from Google's Professional Cloud Network Engineer

Question #: 10

Topic #: 1

[All Professional Cloud Network Engineer Questions]

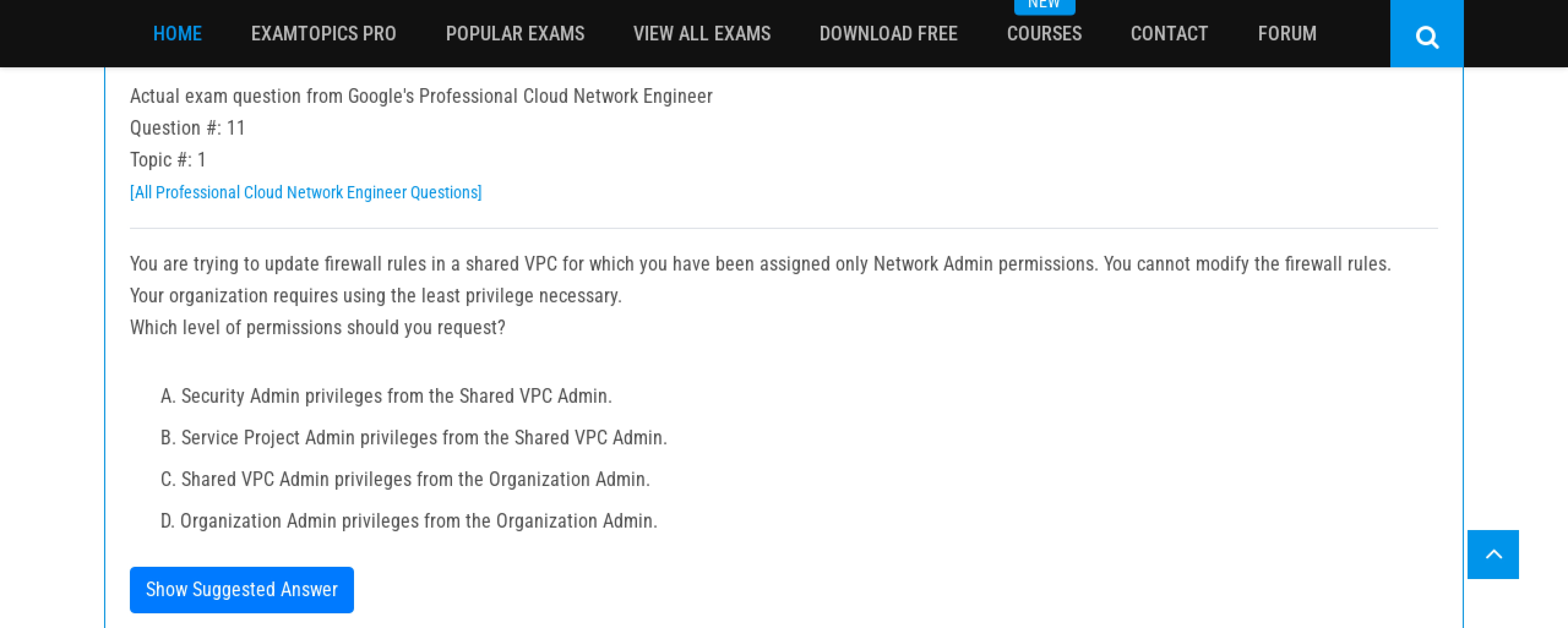
You created a new VPC network named Dev with a single subnet. You added a firewall rule for the network Dev to allow HTTP traffic only and enabled logging.
When you try to log in to an instance in the subnet via Remote Desktop Protocol, the login fails. You look for the Firewall rules logs in Stackdriver Logging, but you do not see any entries for blocked traffic. You want to see the logs for blocked traffic.
What should you do?

A. Check the VPC flow logs for the instance.

B. Try connecting to the instance via SSH, and check the logs.

C. Create a new firewall rule to allow traffic from port 22, and enable logs.

D. Create a new firewall rule with priority 65500 to deny all traffic, and enable logs.



Actual exam question from Google's Professional Cloud Network Engineer

Question #: 11

Topic #: 1

[All Professional Cloud Network Engineer Questions]

You are trying to update firewall rules in a shared VPC for which you have been assigned only Network Admin permissions. You cannot modify the firewall rules.

Your organization requires using the least privilege necessary.

Which level of permissions should you request?

A. Security Admin privileges from the Shared VPC Admin.

B. Service Project Admin privileges from the Shared VPC Admin.

C. Shared VPC Admin privileges from the Organization Admin.

D. Organization Admin privileges from the Organization Admin.

Show Suggested Answer

Actual exam question from Google's Professional Cloud Network Engineer
Question #: 12
Topic #: 1
[All Professional Cloud Network Engineer Questions]

You want to create a service in GCP using IPv6.
What should you do?

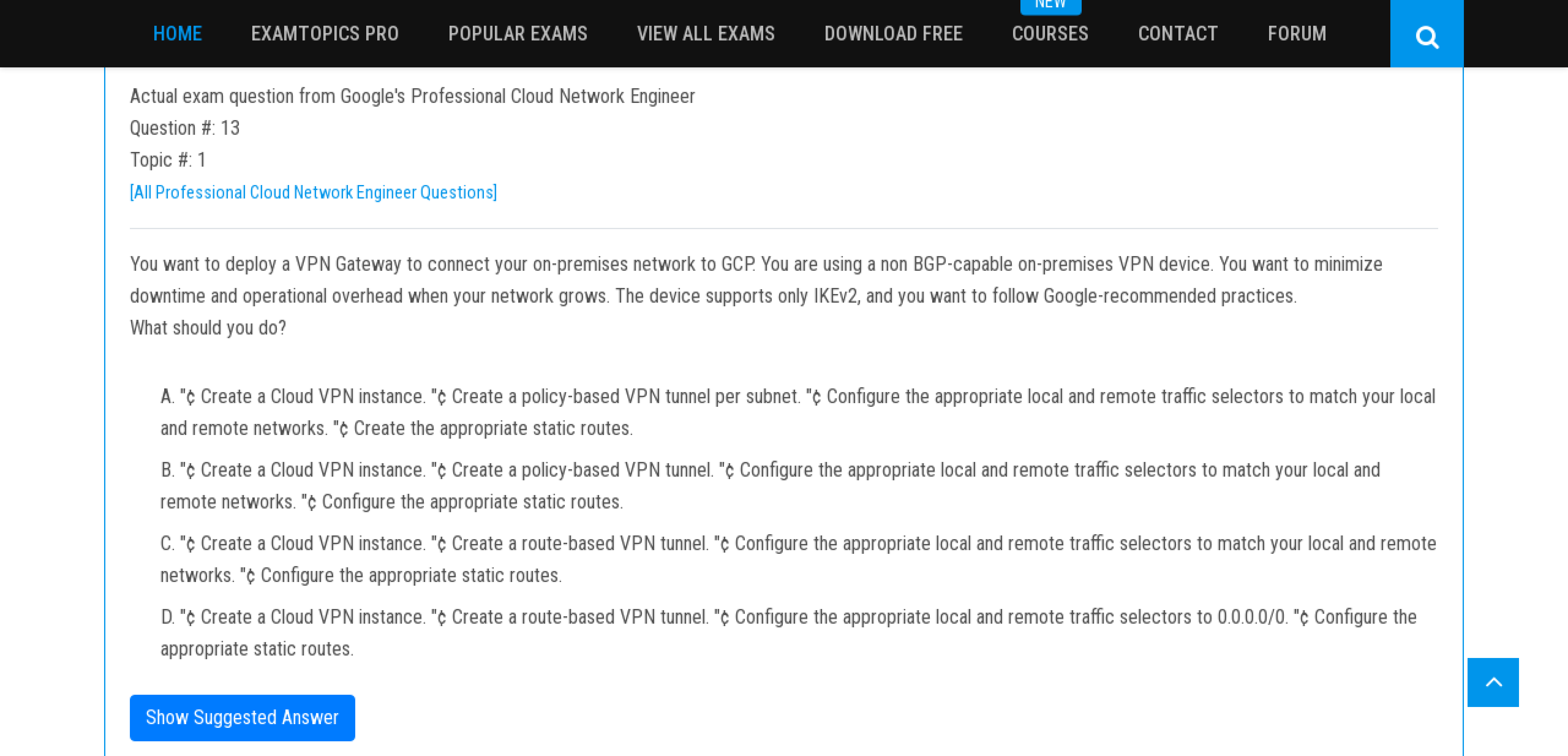
A. Create the instance with the designated IPv6 address.

B. Configure a TCP Proxy with the designated IPv6 address.

C. Configure a global load balancer with the designated IPv6 address.

D. Configure an internal load balancer with the designated IPv6 address.

Show Suggested Answer



Actual exam question from Google's Professional Cloud Network Engineer

Question #: 13

Topic #: 1

[All Professional Cloud Network Engineer Questions]

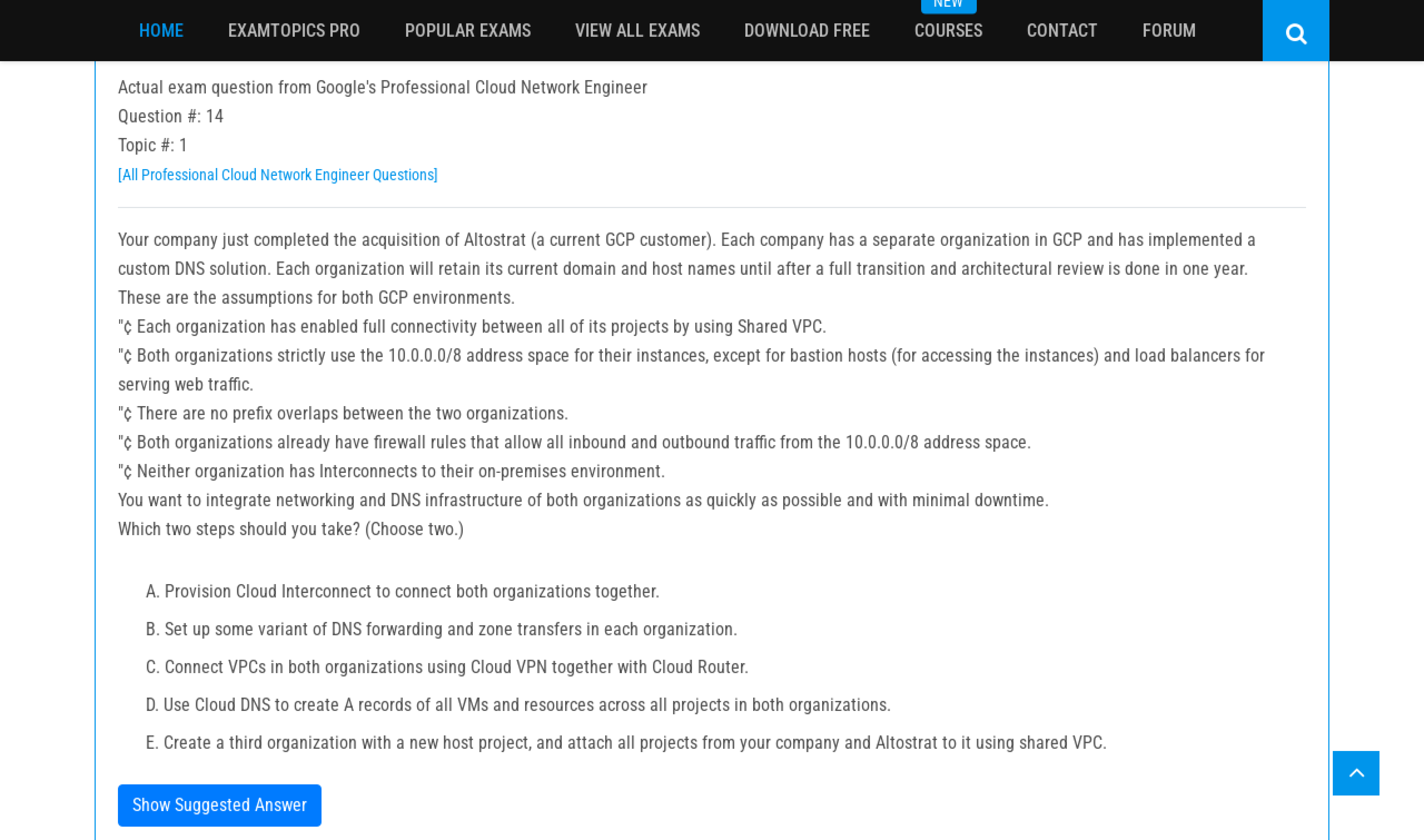
You want to deploy a VPN Gateway to connect your on-premises network to GCP. You are using a non BGP-capable on-premises VPN device. You want to minimize downtime and operational overhead when your network grows. The device supports only IKEv2, and you want to follow Google-recommended practices.
What should you do?

A. "¢ Create a Cloud VPN instance. "¢ Create a policy-based VPN tunnel per subnet. "¢ Configure the appropriate local and remote traffic selectors to match your local and remote networks. "¢ Create the appropriate static routes.

B. "¢ Create a Cloud VPN instance. "¢ Create a policy-based VPN tunnel. "¢ Configure the appropriate local and remote traffic selectors to match your local and remote networks. "¢ Configure the appropriate static routes.

C. "¢ Create a Cloud VPN instance. "¢ Create a route-based VPN tunnel. "¢ Configure the appropriate local and remote traffic selectors to match your local and remote networks. "¢ Configure the appropriate static routes.

D. "¢ Create a Cloud VPN instance. "¢ Create a route-based VPN tunnel. "¢ Configure the appropriate local and remote traffic selectors to 0.0.0.0/0. "¢ Configure the appropriate static routes.



Actual exam question from Google's Professional Cloud Network Engineer

Question #: 14

Topic #: 1

[All Professional Cloud Network Engineer Questions]

Your company just completed the acquisition of Altostrat (a current GCP customer). Each company has a separate organization in GCP and has implemented a custom DNS solution. Each organization will retain its current domain and host names until after a full transition and architectural review is done in one year.
These are the assumptions for both GCP environments.
"¢ Each organization has enabled full connectivity between all of its projects by using Shared VPC.
"¢ Both organizations strictly use the 10.0.0.0/8 address space for their instances, except for bastion hosts (for accessing the instances) and load balancers for serving web traffic.
"¢ There are no prefix overlaps between the two organizations.
"¢ Both organizations already have firewall rules that allow all inbound and outbound traffic from the 10.0.0.0/8 address space.
"¢ Neither organization has Interconnects to their on-premises environment.
You want to integrate networking and DNS infrastructure of both organizations as quickly as possible and with minimal downtime.
Which two steps should you take? (Choose two.)

A. Provision Cloud Interconnect to connect both organizations together.

B. Set up some variant of DNS forwarding and zone transfers in each organization.

C. Connect VPCs in both organizations using Cloud VPN together with Cloud Router.

D. Use Cloud DNS to create A records of all VMs and resources across all projects in both organizations.

E. Create a third organization with a new host project, and attach all projects from your company and Altostrat to it using shared VPC.

Actual exam question from Google's Professional Cloud Network Engineer

Question #: 15

Topic #: 1

[All Professional Cloud Network Engineer Questions]

Your on-premises data center has 2 routers connected to your Google Cloud environment through a VPN on each router. All applications are working correctly; however, all of the traffic is passing across a single VPN instead of being load-balanced across the 2 connections as desired.

During troubleshooting you find:

"¢ Each on-premises router is configured with a unique ASN.

"¢ Each on-premises router is configured with the same routes and priorities.

"¢ Both on-premises routers are configured with a VPN connected to a single Cloud Router.

"¢ BGP sessions are established between both on-premises routers and the Cloud Router.

"¢ Only 1 of the on-premises router's routes are being added to the routing table.

What is the most likely cause of this problem?

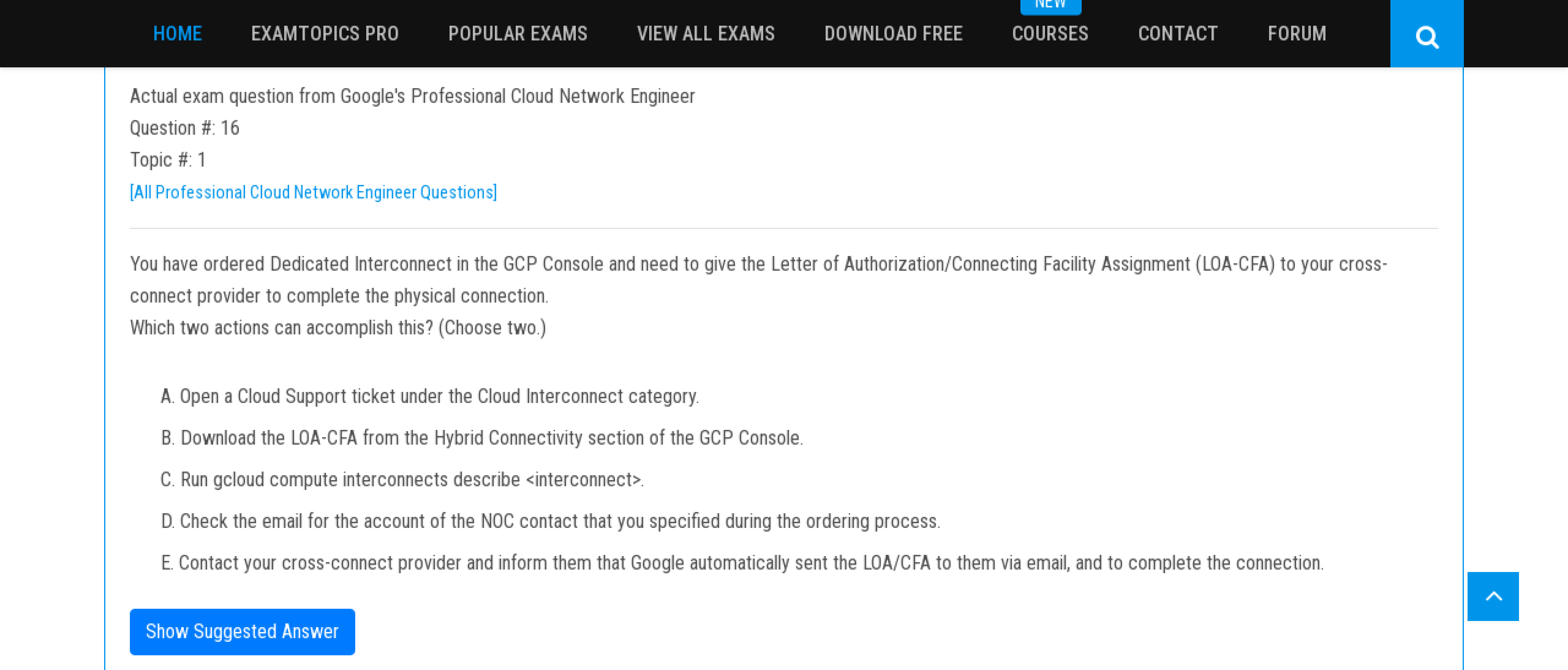
A. The on-premises routers are configured with the same routes.

B. A firewall is blocking the traffic across the second VPN connection.

C. You do not have a load balancer to load-balance the network traffic.

D. The ASNs being used on the on-premises routers are different.

Show Suggested Answer



Actual exam question from Google's Professional Cloud Network Engineer
Question #: 16
Topic #: 1
[All Professional Cloud Network Engineer Questions]

You have ordered Dedicated Interconnect in the GCP Console and need to give the Letter of Authorization/Connecting Facility Assignment (LOA-CFA) to your cross-connect provider to complete the physical connection.
Which two actions can accomplish this? (Choose two.)

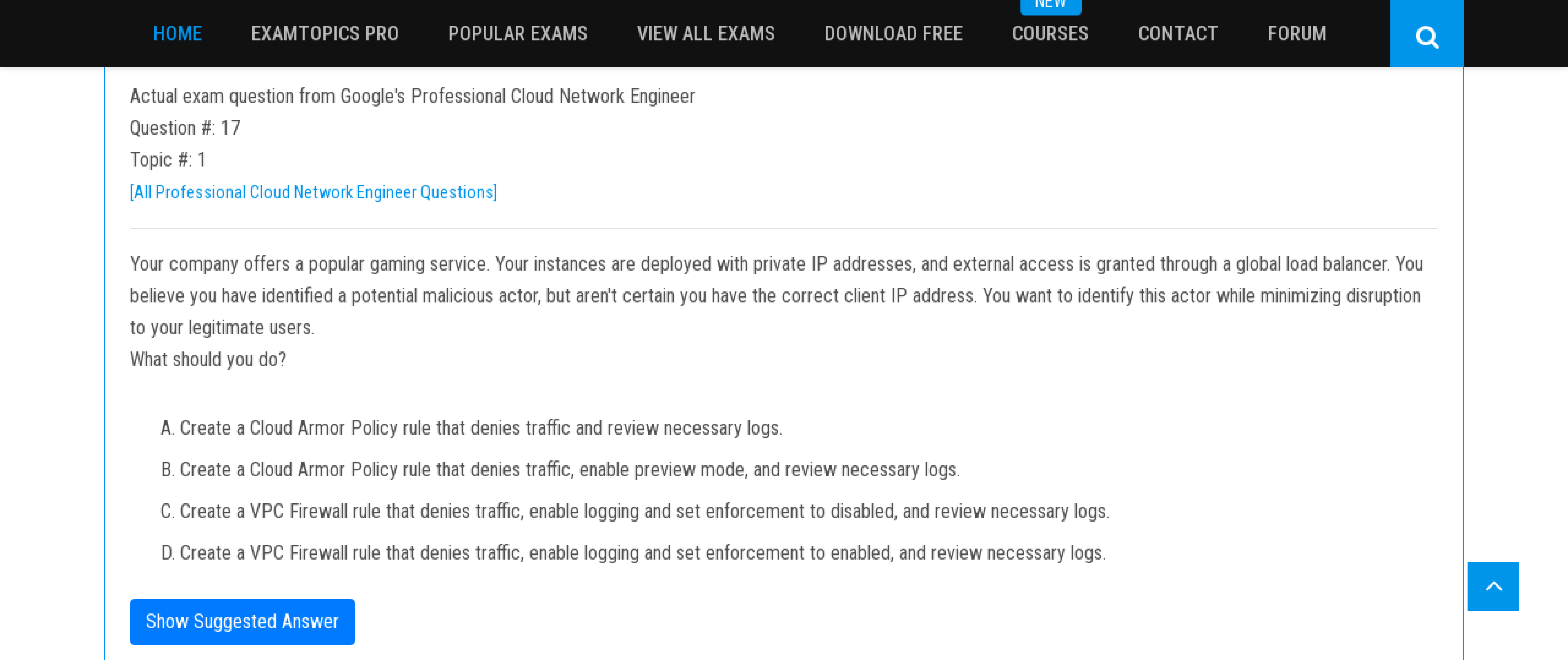
A. Open a Cloud Support ticket under the Cloud Interconnect category.

B. Download the LOA-CFA from the Hybrid Connectivity section of the GCP Console.

C. Run gcloud compute interconnects describe <interconnect>.

D. Check the email for the account of the NOC contact that you specified during the ordering process.

E. Contact your cross-connect provider and inform them that Google automatically sent the LOA/CFA to them via email, and to complete the connection.



Actual exam question from Google's Professional Cloud Network Engineer
Question #: 17
Topic #: 1
[All Professional Cloud Network Engineer Questions]

Your company offers a popular gaming service. Your instances are deployed with private IP addresses, and external access is granted through a global load balancer. You believe you have identified a potential malicious actor, but aren't certain you have the correct client IP address. You want to identify this actor while minimizing disruption to your legitimate users.
What should you do?

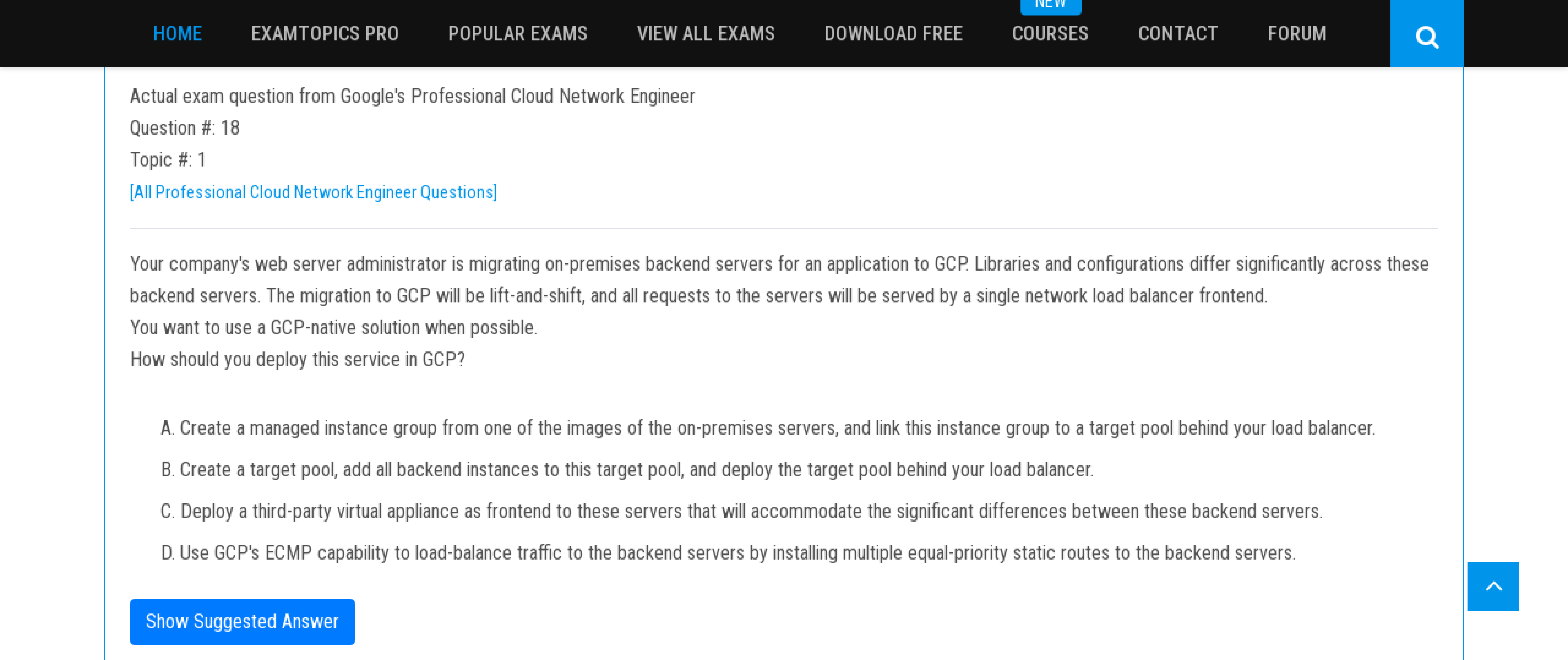
A. Create a Cloud Armor Policy rule that denies traffic and review necessary logs.

B. Create a Cloud Armor Policy rule that denies traffic, enable preview mode, and review necessary logs.

C. Create a VPC Firewall rule that denies traffic, enable logging and set enforcement to disabled, and review necessary logs.

D. Create a VPC Firewall rule that denies traffic, enable logging and set enforcement to enabled, and review necessary logs.

Show Suggested Answer



Actual exam question from Google's Professional Cloud Network Engineer

Question #: 18

Topic #: 1

[All Professional Cloud Network Engineer Questions]

Your company's web server administrator is migrating on-premises backend servers for an application to GCP. Libraries and configurations differ significantly across these backend servers. The migration to GCP will be lift-and-shift, and all requests to the servers will be served by a single network load balancer frontend.

You want to use a GCP-native solution when possible.

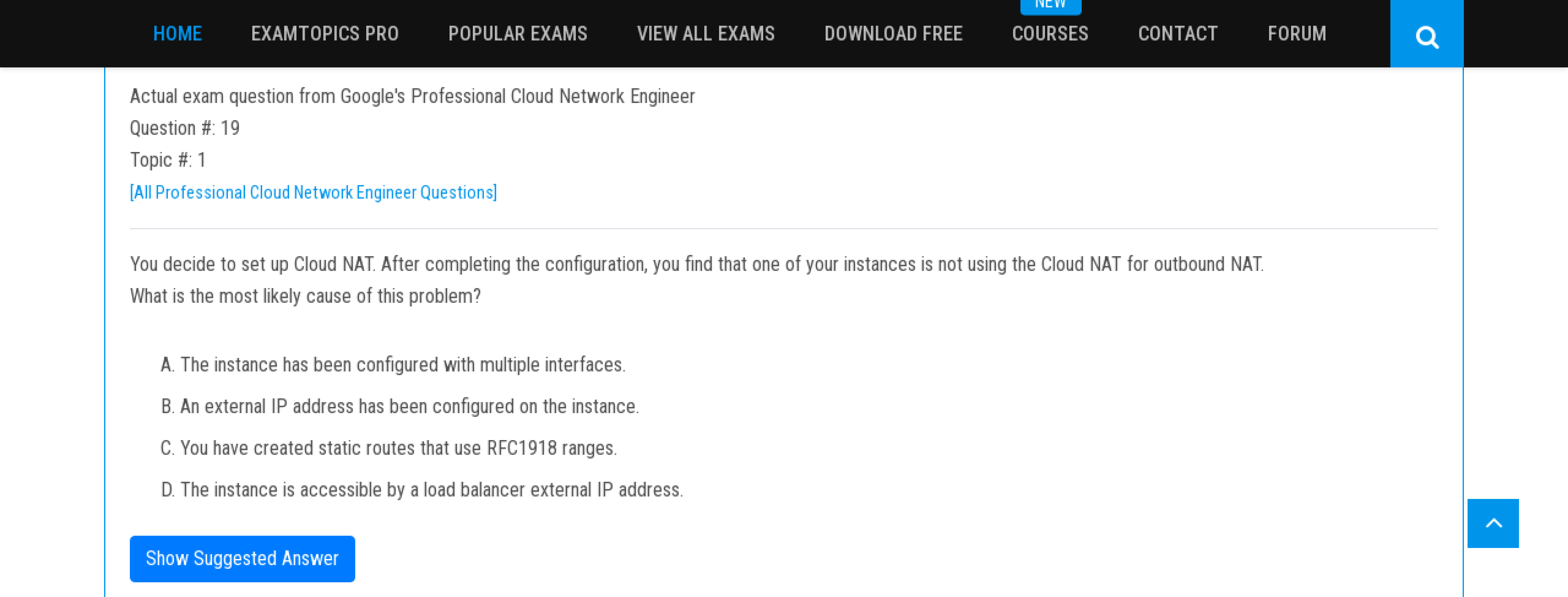
How should you deploy this service in GCP?

A. Create a managed instance group from one of the images of the on-premises servers, and link this instance group to a target pool behind your load balancer.

B. Create a target pool, add all backend instances to this target pool, and deploy the target pool behind your load balancer.

C. Deploy a third-party virtual appliance as frontend to these servers that will accommodate the significant differences between these backend servers.

D. Use GCP's ECMP capability to load-balance traffic to the backend servers by installing multiple equal-priority static routes to the backend servers.



Actual exam question from Google's Professional Cloud Network Engineer

Question #: 19

Topic #: 1

[All Professional Cloud Network Engineer Questions]

You decide to set up Cloud NAT. After completing the configuration, you find that one of your instances is not using the Cloud NAT for outbound NAT.

What is the most likely cause of this problem?

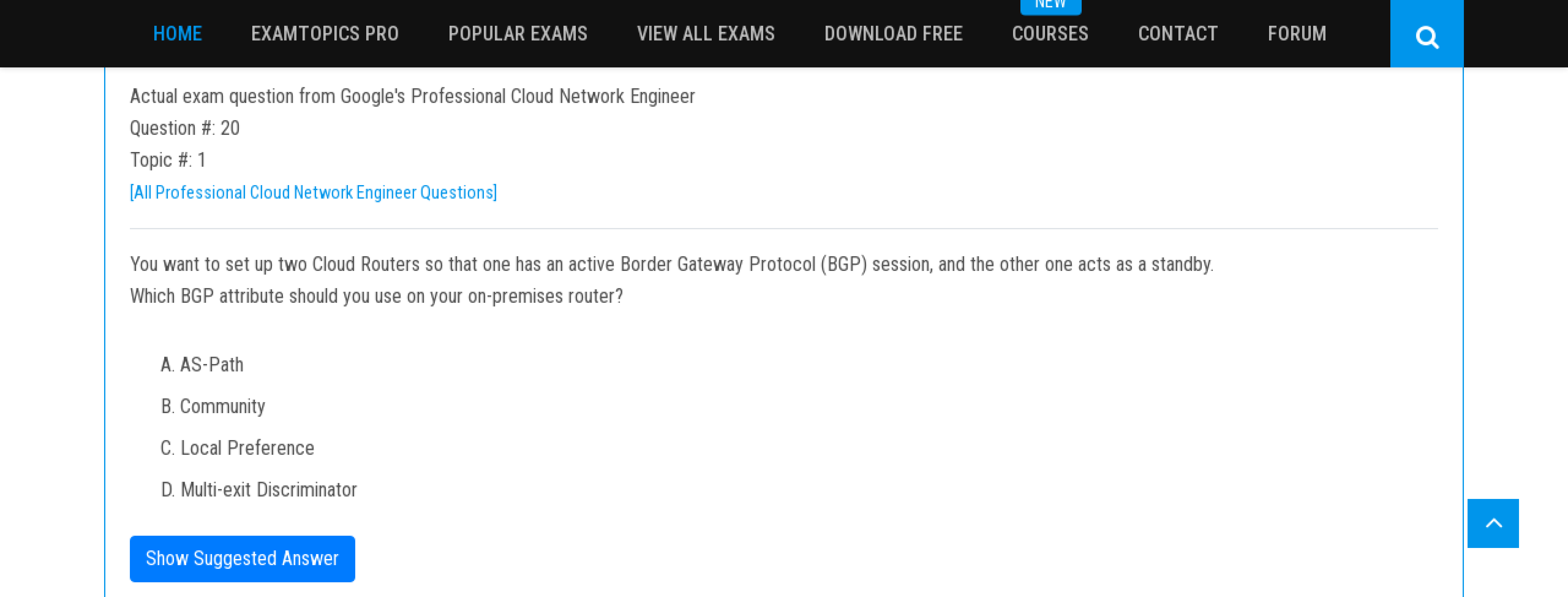
A. The instance has been configured with multiple interfaces.

B. An external IP address has been configured on the instance.

C. You have created static routes that use RFC1918 ranges.

D. The instance is accessible by a load balancer external IP address.

Show Suggested Answer



Actual exam question from Google's Professional Cloud Network Engineer

Question #: 20

Topic #: 1

[All Professional Cloud Network Engineer Questions]

You want to set up two Cloud Routers so that one has an active Border Gateway Protocol (BGP) session, and the other one acts as a standby.

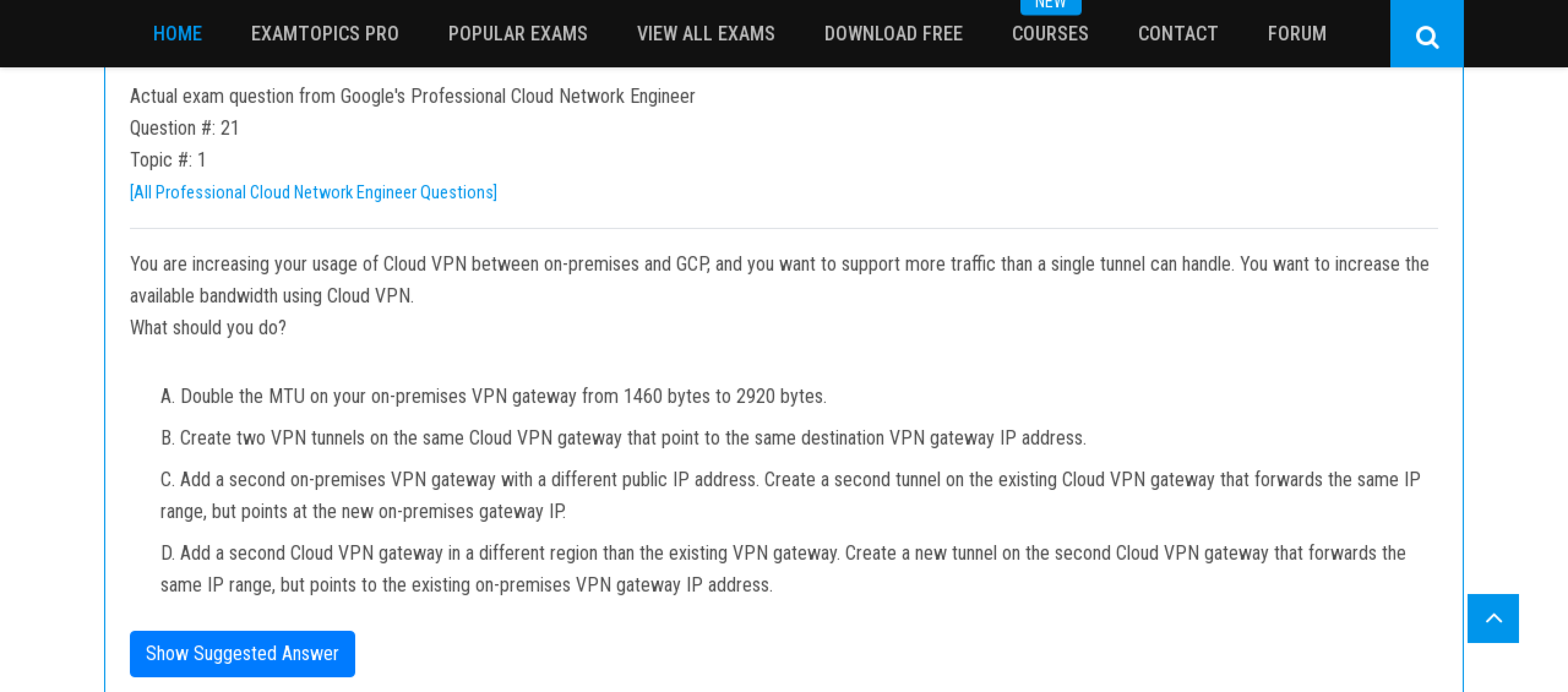
Which BGP attribute should you use on your on-premises router?

A. AS-Path

B. Community

C. Local Preference

D. Multi-exit Discriminator



Actual exam question from Google's Professional Cloud Network Engineer

Question #: 21

Topic #: 1

[All Professional Cloud Network Engineer Questions]

You are increasing your usage of Cloud VPN between on-premises and GCP, and you want to support more traffic than a single tunnel can handle. You want to increase the available bandwidth using Cloud VPN.
What should you do?

A. Double the MTU on your on-premises VPN gateway from 1460 bytes to 2920 bytes.

B. Create two VPN tunnels on the same Cloud VPN gateway that point to the same destination VPN gateway IP address.

C. Add a second on-premises VPN gateway with a different public IP address. Create a second tunnel on the existing Cloud VPN gateway that forwards the same IP range, but points at the new on-premises gateway IP.

D. Add a second Cloud VPN gateway in a different region than the existing VPN gateway. Create a new tunnel on the second Cloud VPN gateway that forwards the same IP range, but points to the existing on-premises VPN gateway IP address.

Show Suggested Answer

Actual exam question from Google's Professional Cloud Network Engineer

Question #: 22

Topic #: 1

[All Professional Cloud Network Engineer Questions]

You are disabling DNSSEC for one of your Cloud DNS-managed zones. You removed the DS records from your zone file, waited for them to expire from the cache, and disabled DNSSEC for the zone. You receive reports that DNSSEC validating resolves are unable to resolve names in your zone.

What should you do?

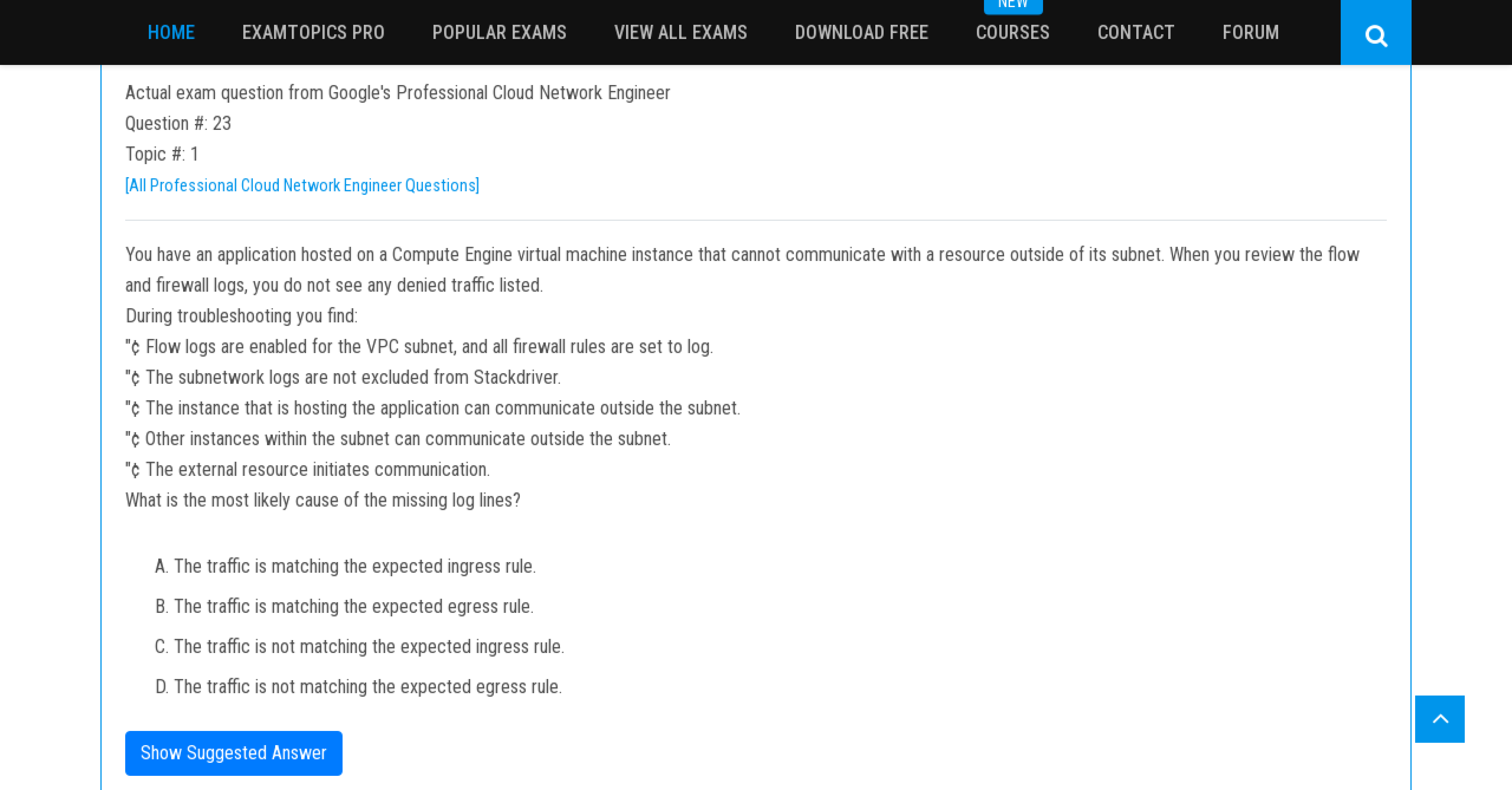
A. Update the TTL for the zone.

B. Set the zone to the TRANSFER state.

C. Disable DNSSEC at your domain registrar.

D. Transfer ownership of the domain to a new registrar.

Show Suggested Answer



Actual exam question from Google's Professional Cloud Network Engineer

Question #: 23

Topic #: 1

[All Professional Cloud Network Engineer Questions]

You have an application hosted on a Compute Engine virtual machine instance that cannot communicate with a resource outside of its subnet. When you review the flow and firewall logs, you do not see any denied traffic listed.

During troubleshooting you find:

"¢ Flow logs are enabled for the VPC subnet, and all firewall rules are set to log.

"¢ The subnetwork logs are not excluded from Stackdriver.

"¢ The instance that is hosting the application can communicate outside the subnet.

"¢ Other instances within the subnet can communicate outside the subnet.

"¢ The external resource initiates communication.

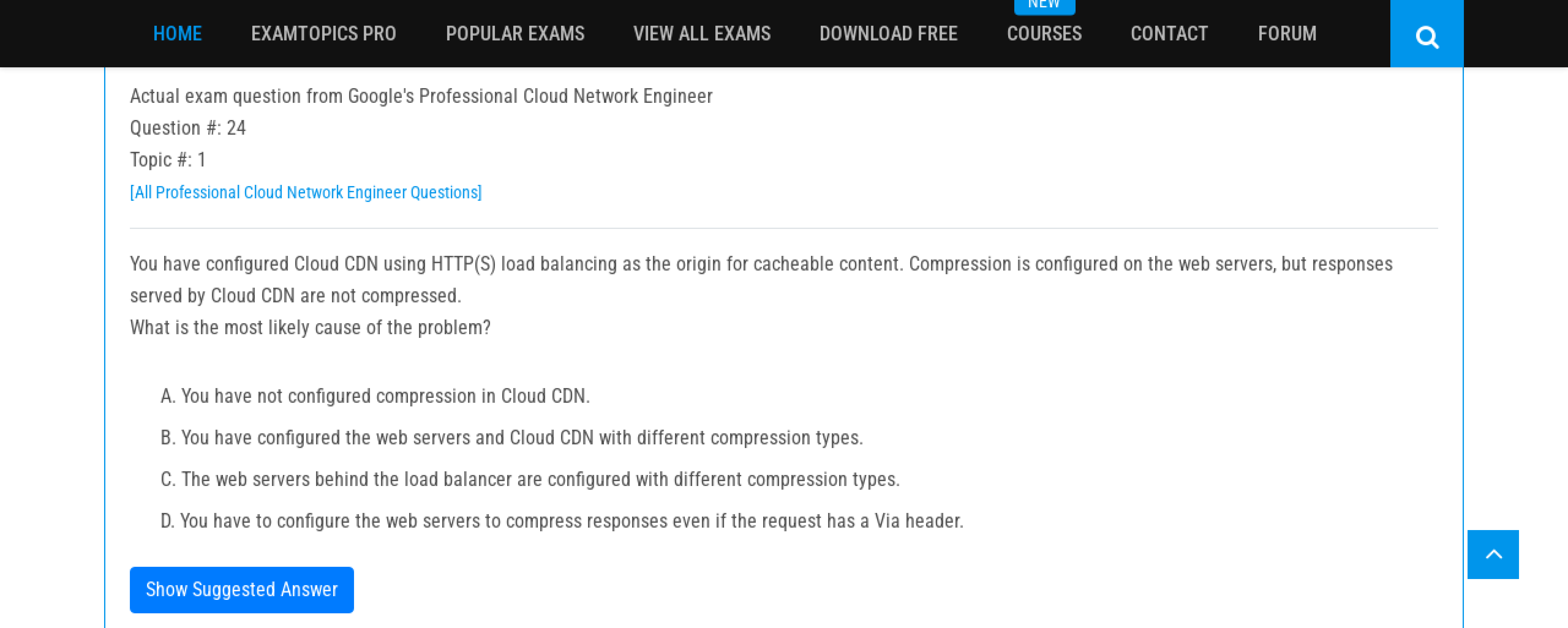
What is the most likely cause of the missing log lines?

A. The traffic is matching the expected ingress rule.

B. The traffic is matching the expected egress rule.

C. The traffic is not matching the expected ingress rule.

D. The traffic is not matching the expected egress rule.



Actual exam question from Google's Professional Cloud Network Engineer

Question #: 24

Topic #: 1

[All Professional Cloud Network Engineer Questions]

You have configured Cloud CDN using HTTP(S) load balancing as the origin for cacheable content. Compression is configured on the web servers, but responses served by Cloud CDN are not compressed.

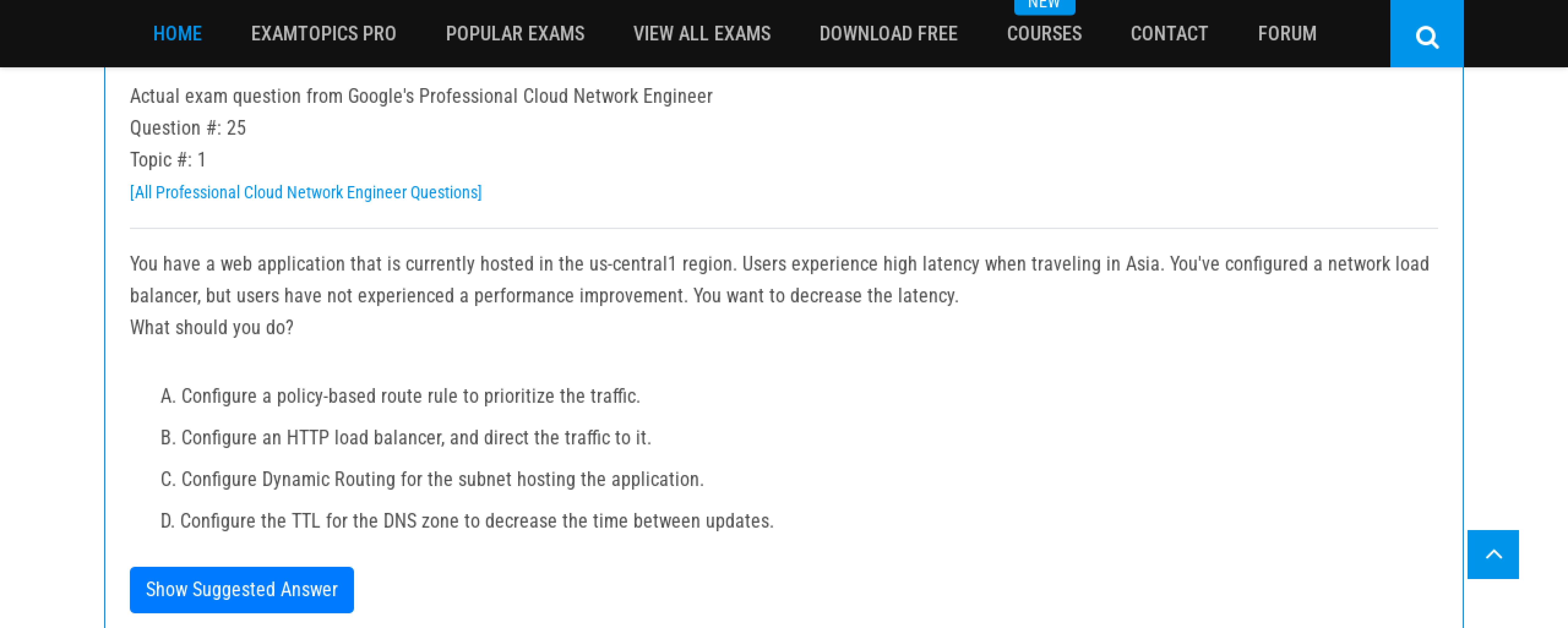
What is the most likely cause of the problem?

A. You have not configured compression in Cloud CDN.

B. You have configured the web servers and Cloud CDN with different compression types.

C. The web servers behind the load balancer are configured with different compression types.

D. You have to configure the web servers to compress responses even if the request has a Via header.



Actual exam question from Google's Professional Cloud Network Engineer
Question #: 25
Topic #: 1

[All Professional Cloud Network Engineer Questions]

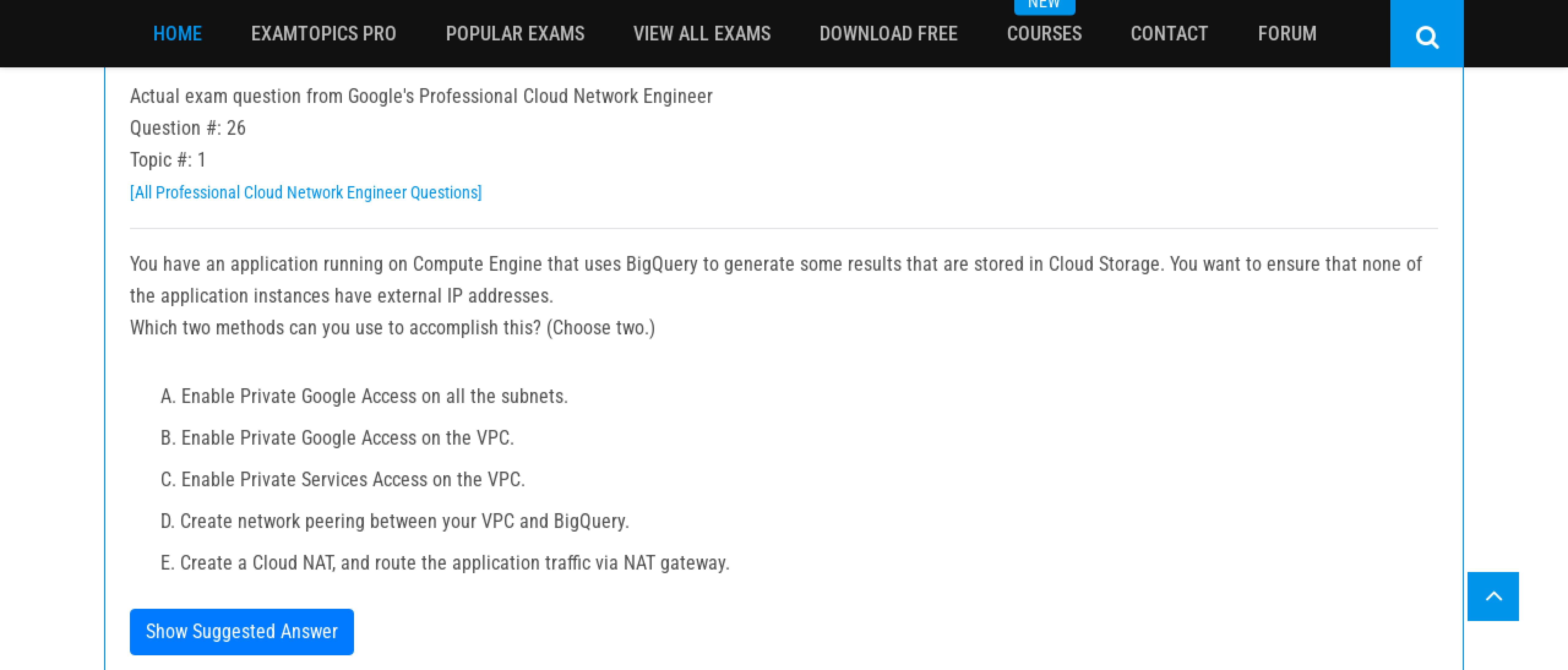
You have a web application that is currently hosted in the us-central1 region. Users experience high latency when traveling in Asia. You've configured a network load balancer, but users have not experienced a performance improvement. You want to decrease the latency.
What should you do?

A. Configure a policy-based route rule to prioritize the traffic.

B. Configure an HTTP load balancer, and direct the traffic to it.

C. Configure Dynamic Routing for the subnet hosting the application.

D. Configure the TTL for the DNS zone to decrease the time between updates.



Actual exam question from Google's Professional Cloud Network Engineer
Question #: 26
Topic #: 1

[All Professional Cloud Network Engineer Questions]

You have an application running on Compute Engine that uses BigQuery to generate some results that are stored in Cloud Storage. You want to ensure that none of the application instances have external IP addresses.
Which two methods can you use to accomplish this? (Choose two.)

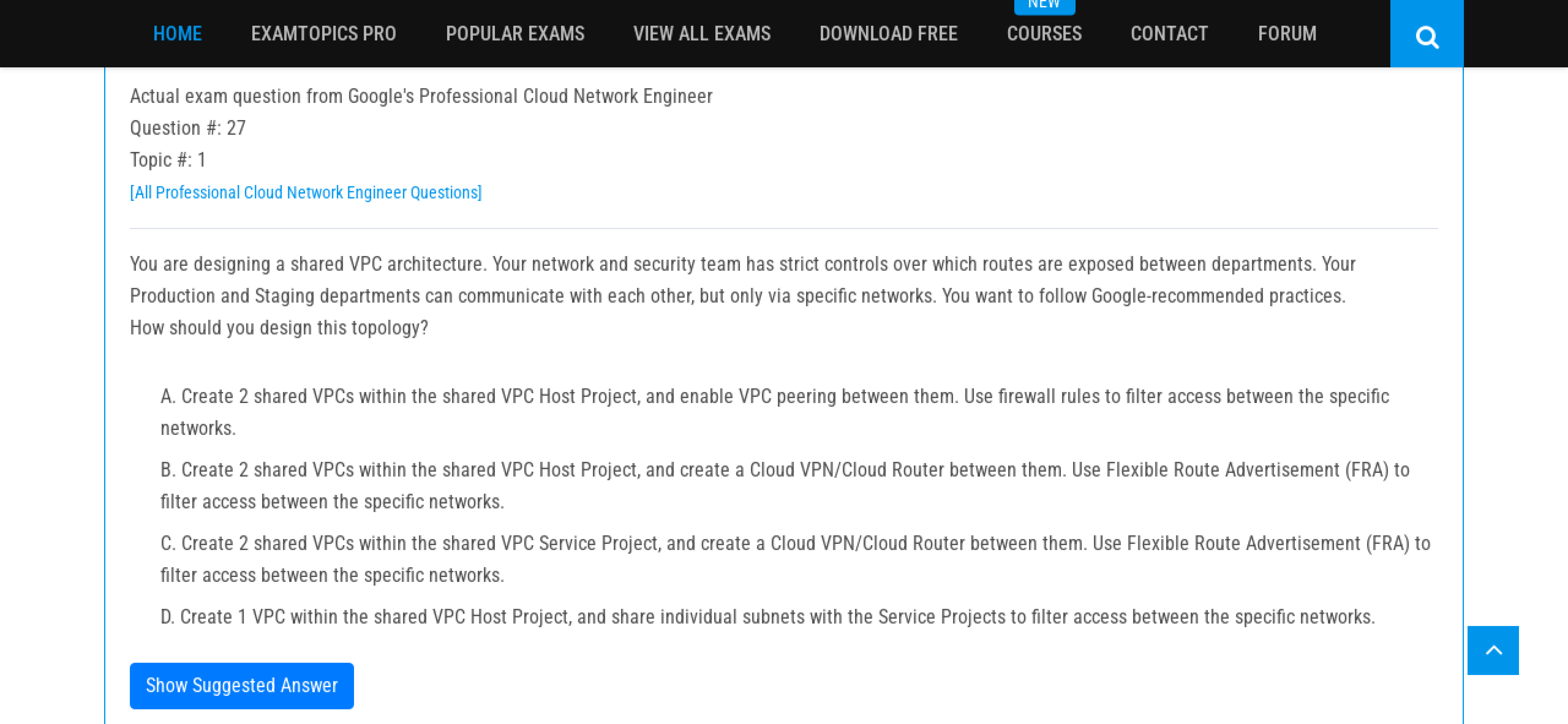
A. Enable Private Google Access on all the subnets.

B. Enable Private Google Access on the VPC.

C. Enable Private Services Access on the VPC.

D. Create network peering between your VPC and BigQuery.

E. Create a Cloud NAT, and route the application traffic via NAT gateway.



Actual exam question from Google's Professional Cloud Network Engineer

Question #: 27

Topic #: 1

[All Professional Cloud Network Engineer Questions]

You are designing a shared VPC architecture. Your network and security team has strict controls over which routes are exposed between departments. Your Production and Staging departments can communicate with each other, but only via specific networks. You want to follow Google-recommended practices.

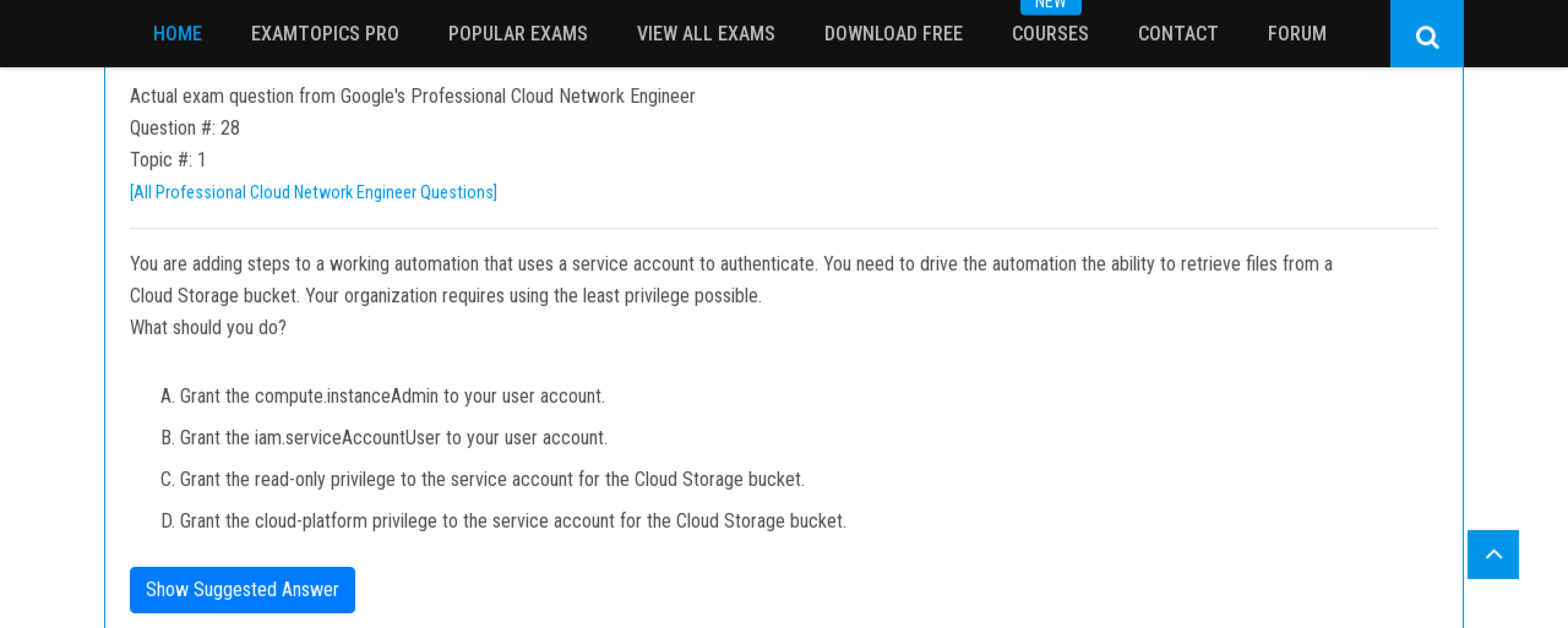
How should you design this topology?

A. Create 2 shared VPCs within the shared VPC Host Project, and enable VPC peering between them. Use firewall rules to filter access between the specific networks.

B. Create 2 shared VPCs within the shared VPC Host Project, and create a Cloud VPN/Cloud Router between them. Use Flexible Route Advertisement (FRA) to filter access between the specific networks.

C. Create 2 shared VPCs within the shared VPC Service Project, and create a Cloud VPN/Cloud Router between them. Use Flexible Route Advertisement (FRA) to filter access between the specific networks.

D. Create 1 VPC within the shared VPC Host Project, and share individual subnets with the Service Projects to filter access between the specific networks.



Actual exam question from Google's Professional Cloud Network Engineer
Question #: 28
Topic #: 1
[All Professional Cloud Network Engineer Questions]

You are adding steps to a working automation that uses a service account to authenticate. You need to drive the automation the ability to retrieve files from a Cloud Storage bucket. Your organization requires using the least privilege possible.
What should you do?

A. Grant the compute.instanceAdmin to your user account.

B. Grant the iam.serviceAccountUser to your user account.

C. Grant the read-only privilege to the service account for the Cloud Storage bucket.

D. Grant the cloud-platform privilege to the service account for the Cloud Storage bucket.

Actual exam question from Google's Professional Cloud Network Engineer

Question #: 29

Topic #: 1

[All Professional Cloud Network Engineer Questions]

You converted an auto mode VPC network to custom mode. Since the conversion, some of your Cloud Deployment Manager templates are no longer working.

You want to resolve the problem.

What should you do?

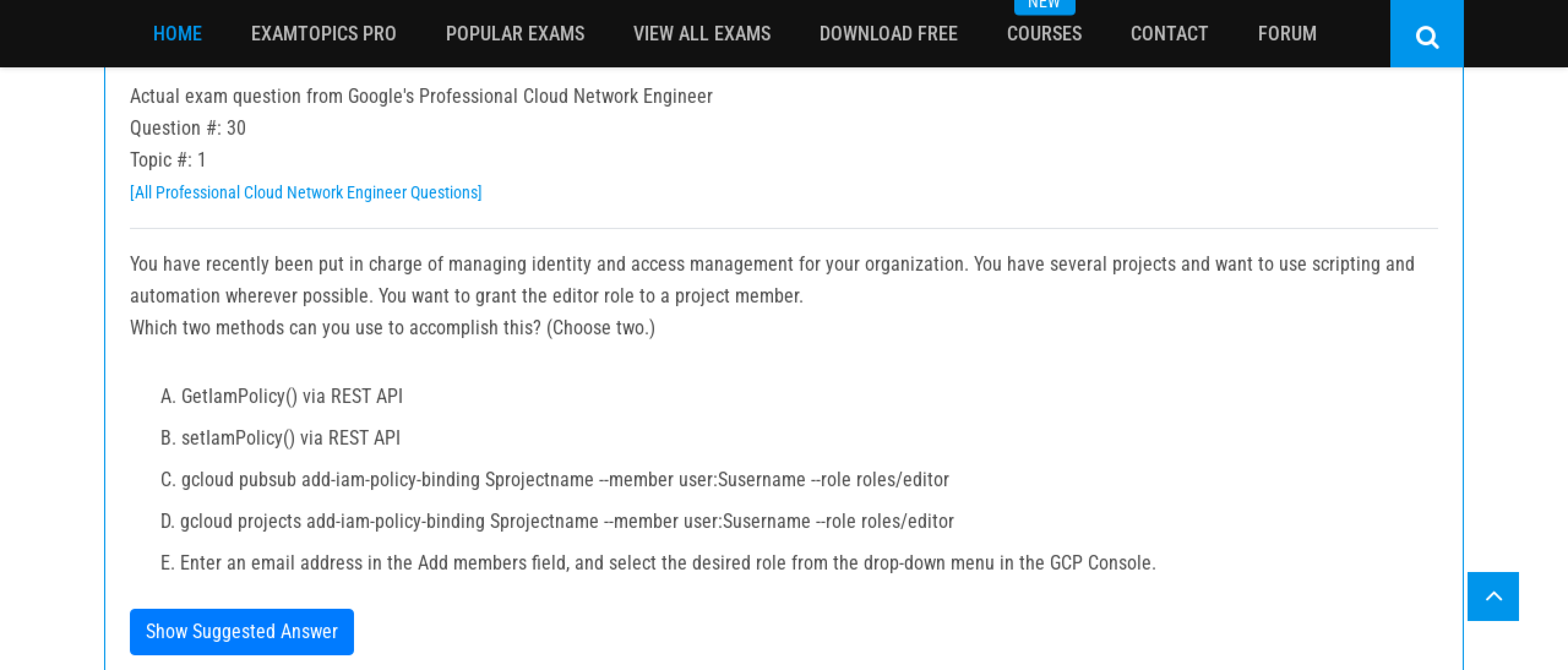
A. Apply an additional IAM role to the Google API's service account to allow custom mode networks.

B. Update the VPC firewall to allow the Cloud Deployment Manager to access the custom mode networks.

C. Explicitly reference the custom mode networks in the Cloud Armor whitelist.

D. Explicitly reference the custom mode networks in the Deployment Manager templates.

Show Suggested Answer



Actual exam question from Google's Professional Cloud Network Engineer

Question #: 30

Topic #: 1

[All Professional Cloud Network Engineer Questions]

You have recently been put in charge of managing identity and access management for your organization. You have several projects and want to use scripting and automation wherever possible. You want to grant the editor role to a project member.

Which two methods can you use to accomplish this? (Choose two.)

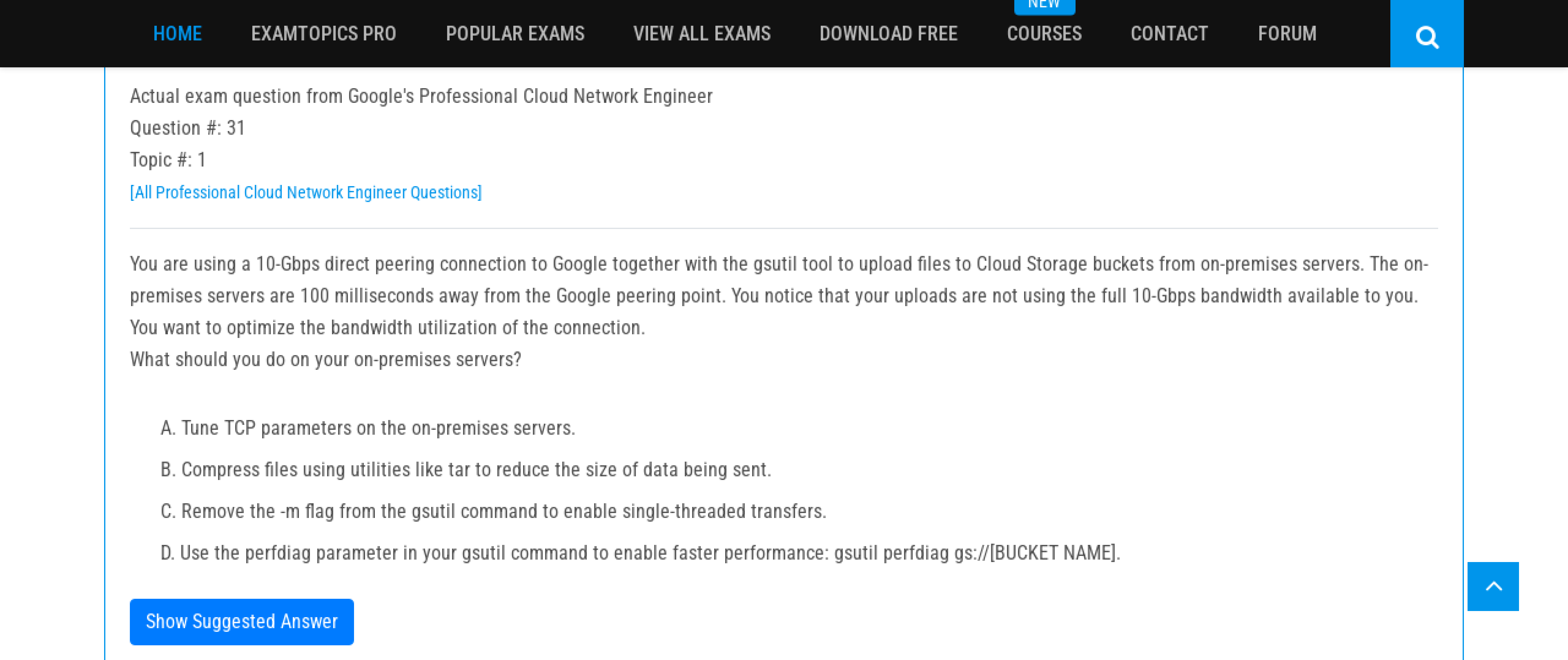
A. GetIamPolicy() via REST API

B. setIamPolicy() via REST API

C. gcloud pubsub add-iam-policy-binding Sprojectname --member user:Susername --role roles/editor

D. gcloud projects add-iam-policy-binding Sprojectname --member user:Susername --role roles/editor

E. Enter an email address in the Add members field, and select the desired role from the drop-down menu in the GCP Console.



Actual exam question from Google's Professional Cloud Network Engineer
Question #: 31
Topic #: 1
[All Professional Cloud Network Engineer Questions]

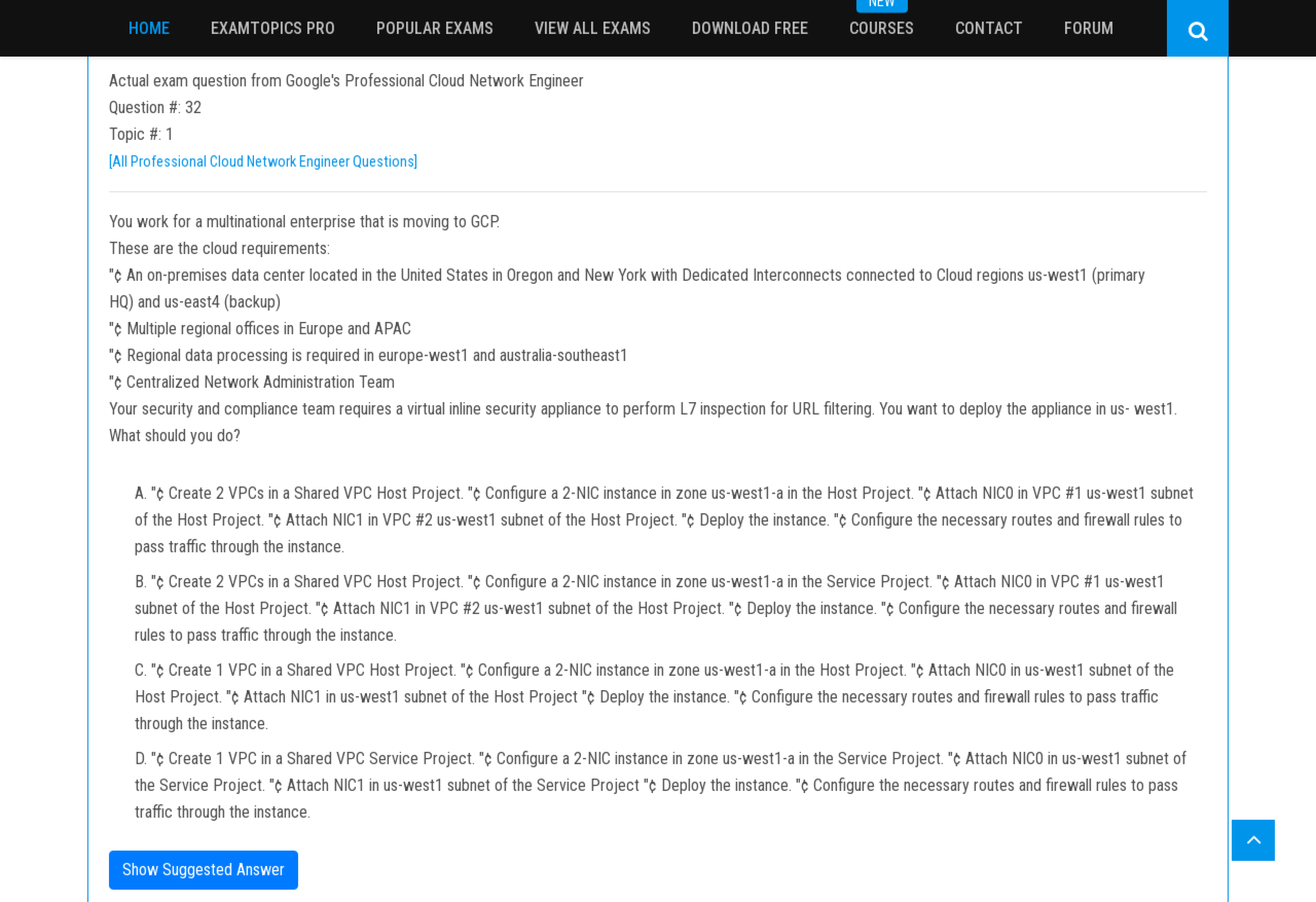
You are using a 10-Gbps direct peering connection to Google together with the gsutil tool to upload files to Cloud Storage buckets from on-premises servers. The on-premises servers are 100 milliseconds away from the Google peering point. You notice that your uploads are not using the full 10-Gbps bandwidth available to you. You want to optimize the bandwidth utilization of the connection.
What should you do on your on-premises servers?

A. Tune TCP parameters on the on-premises servers.

B. Compress files using utilities like tar to reduce the size of data being sent.

C. Remove the -m flag from the gsutil command to enable single-threaded transfers.

D. Use the perfdiag parameter in your gsutil command to enable faster performance: gsutil perfdiag gs://[BUCKET NAME].



Actual exam question from Google's Professional Cloud Network Engineer

Question #: 32

Topic #: 1

[All Professional Cloud Network Engineer Questions]

You work for a multinational enterprise that is moving to GCP.

These are the cloud requirements:

"¢ An on-premises data center located in the United States in Oregon and New York with Dedicated Interconnects connected to Cloud regions us-west1 (primary HQ) and us-east4 (backup)

"¢ Multiple regional offices in Europe and APAC

"¢ Regional data processing is required in europe-west1 and australia-southeast1

"¢ Centralized Network Administration Team

Your security and compliance team requires a virtual inline security appliance to perform L7 inspection for URL filtering. You want to deploy the appliance in us- west1.

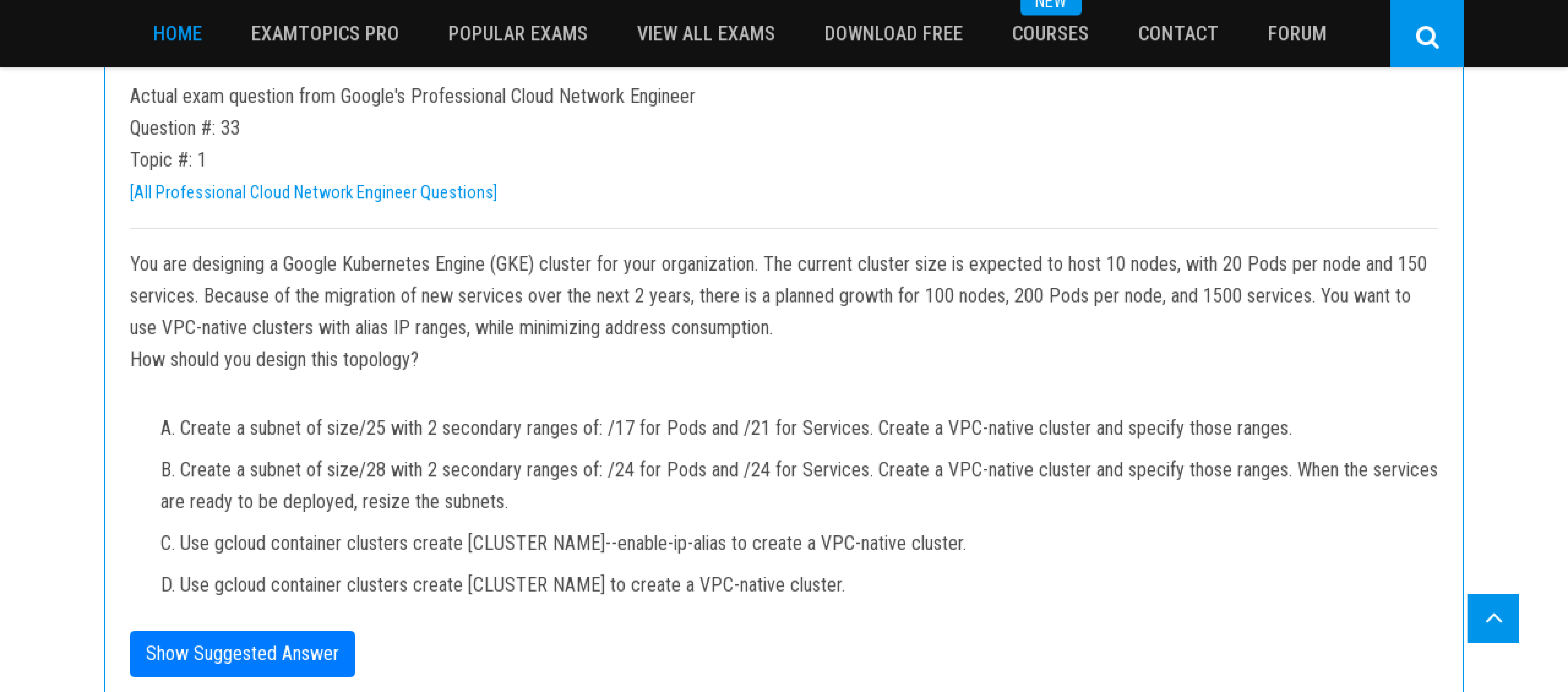
What should you do?

A. "¢ Create 2 VPCs in a Shared VPC Host Project. "¢ Configure a 2-NIC instance in zone us-west1-a in the Host Project. "¢ Attach NIC0 in VPC #1 us-west1 subnet of the Host Project. "¢ Attach NIC1 in VPC #2 us-west1 subnet of the Host Project. "¢ Deploy the instance. "¢ Configure the necessary routes and firewall rules to pass traffic through the instance.

B. "¢ Create 2 VPCs in a Shared VPC Host Project. "¢ Configure a 2-NIC instance in zone us-west1-a in the Service Project. "¢ Attach NIC0 in VPC #1 us-west1 subnet of the Host Project. "¢ Attach NIC1 in VPC #2 us-west1 subnet of the Host Project. "¢ Deploy the instance. "¢ Configure the necessary routes and firewall rules to pass traffic through the instance.

C. "¢ Create 1 VPC in a Shared VPC Host Project. "¢ Configure a 2-NIC instance in zone us-west1-a in the Host Project. "¢ Attach NIC0 in us-west1 subnet of the Host Project. "¢ Attach NIC1 in us-west1 subnet of the Host Project "¢ Deploy the instance. "¢ Configure the necessary routes and firewall rules to pass traffic through the instance.

D. "¢ Create 1 VPC in a Shared VPC Service Project. "¢ Configure a 2-NIC instance in zone us-west1-a in the Service Project. "¢ Attach NIC0 in us-west1 subnet of the Service Project. "¢ Attach NIC1 in us-west1 subnet of the Service Project "¢ Deploy the instance. "¢ Configure the necessary routes and firewall rules to pass traffic through the instance.



Actual exam question from Google's Professional Cloud Network Engineer

Question #: 33

Topic #: 1

[All Professional Cloud Network Engineer Questions]

You are designing a Google Kubernetes Engine (GKE) cluster for your organization. The current cluster size is expected to host 10 nodes, with 20 Pods per node and 150 services. Because of the migration of new services over the next 2 years, there is a planned growth for 100 nodes, 200 Pods per node, and 1500 services. You want to use VPC-native clusters with alias IP ranges, while minimizing address consumption.

How should you design this topology?

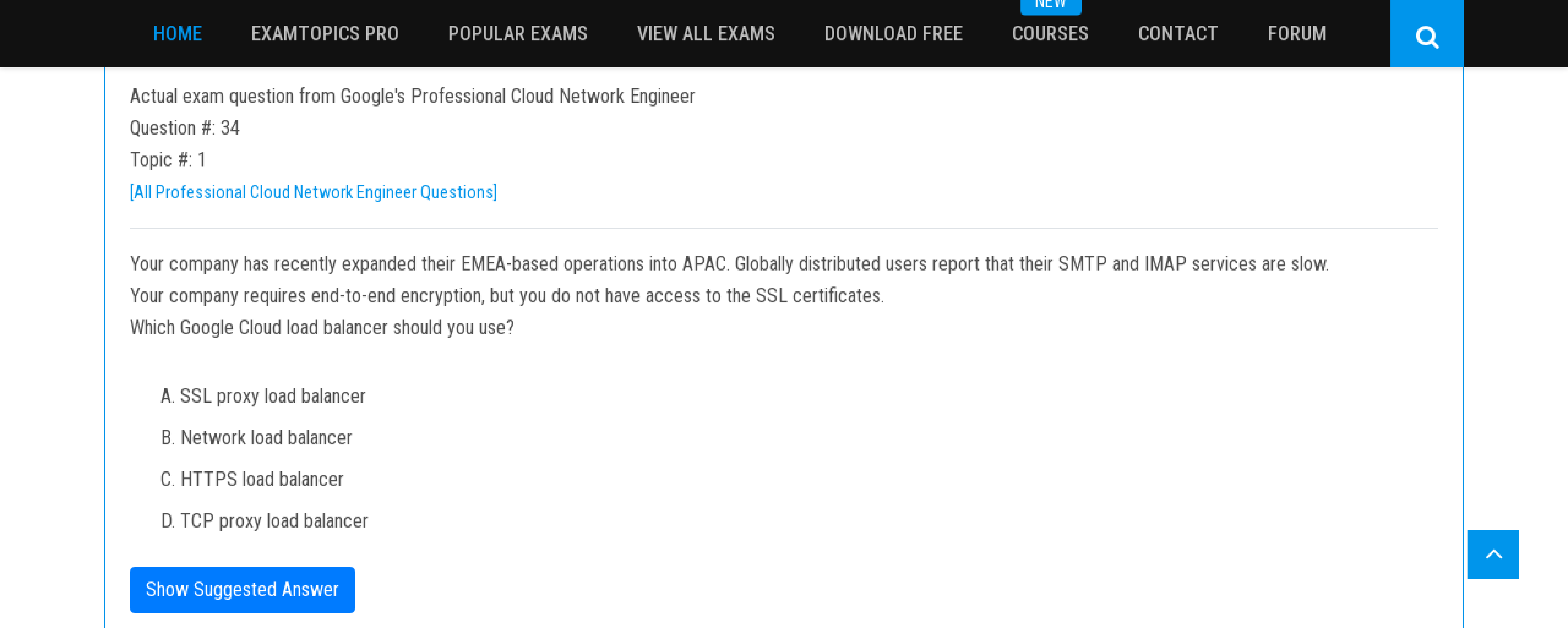
A. Create a subnet of size/25 with 2 secondary ranges of: /17 for Pods and /21 for Services. Create a VPC-native cluster and specify those ranges.

B. Create a subnet of size/28 with 2 secondary ranges of: /24 for Pods and /24 for Services. Create a VPC-native cluster and specify those ranges. When the services are ready to be deployed, resize the subnets.

C. Use gcloud container clusters create [CLUSTER NAME]--enable-ip-alias to create a VPC-native cluster.

D. Use gcloud container clusters create [CLUSTER NAME] to create a VPC-native cluster.

Show Suggested Answer



Actual exam question from Google's Professional Cloud Network Engineer

Question #: 34

Topic #: 1

[All Professional Cloud Network Engineer Questions]

Your company has recently expanded their EMEA-based operations into APAC. Globally distributed users report that their SMTP and IMAP services are slow.

Your company requires end-to-end encryption, but you do not have access to the SSL certificates.

Which Google Cloud load balancer should you use?

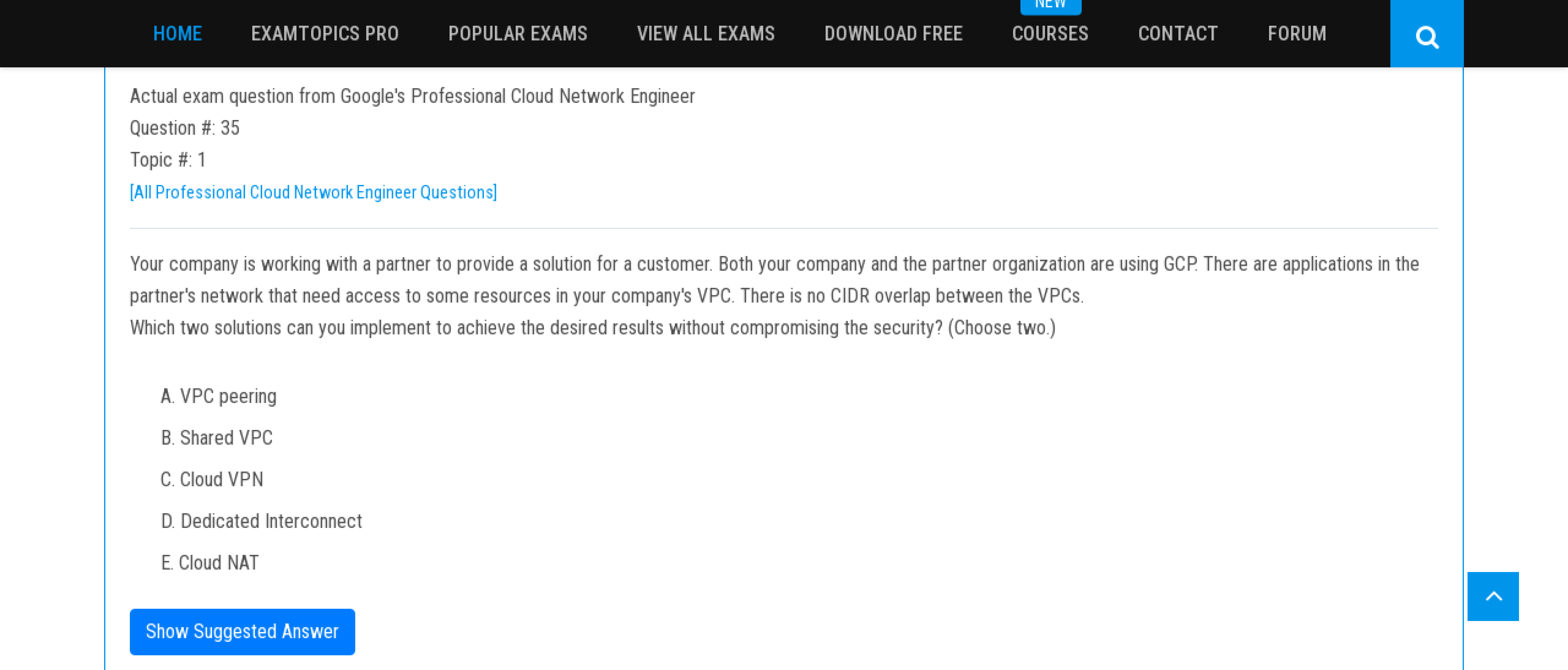
A. SSL proxy load balancer

B. Network load balancer

C. HTTPS load balancer

D. TCP proxy load balancer

Show Suggested Answer



Actual exam question from Google's Professional Cloud Network Engineer

Question #: 35

Topic #: 1

[All Professional Cloud Network Engineer Questions]

Your company is working with a partner to provide a solution for a customer. Both your company and the partner organization are using GCP. There are applications in the partner's network that need access to some resources in your company's VPC. There is no CIDR overlap between the VPCs.

Which two solutions can you implement to achieve the desired results without compromising the security? (Choose two.)

A. VPC peering

B. Shared VPC

C. Cloud VPN

D. Dedicated Interconnect

E. Cloud NAT

Actual exam question from Google's Professional Cloud Network Engineer

Question #: 36

Topic #: 1

[All Professional Cloud Network Engineer Questions]

You have a storage bucket that contains the following objects:

[1]

[1]

[1]

[1]

Cloud CDN is enabled on the storage bucket, and all four objects have been successfully cached. You want to remove the cached copies of all the objects with the prefix folder-a, using the minimum number of commands.

What should you do?

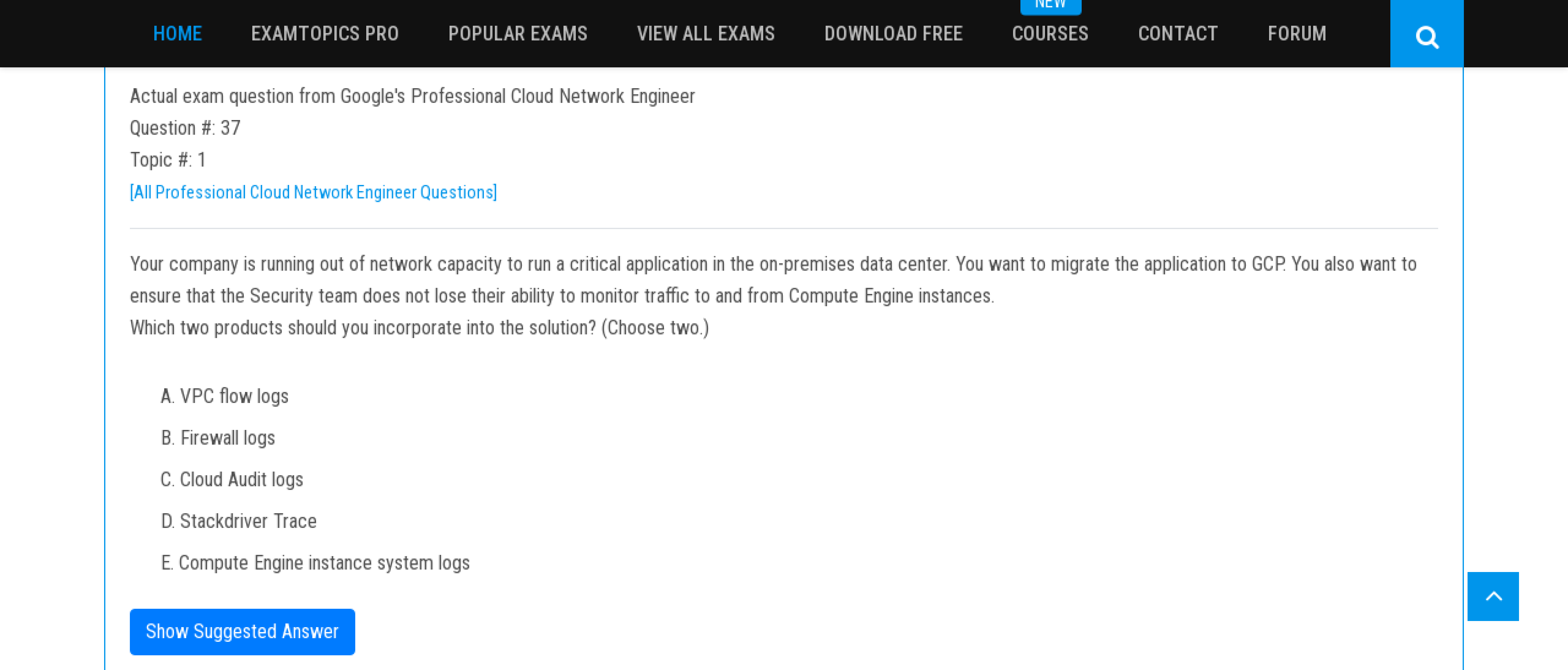
A. Add an appropriate lifecycle rule on the storage bucket.

B. Issue a cache invalidation command with pattern /folder-a/*.

C. Make sure that all the objects with prefix folder-a are not shared publicly.

D. Disable Cloud CDN on the storage bucket. Wait 90 seconds. Re-enable Cloud CDN on the storage bucket.

Show Suggested Answer



Actual exam question from Google's Professional Cloud Network Engineer

Question #: 37

Topic #: 1

[All Professional Cloud Network Engineer Questions]

Your company is running out of network capacity to run a critical application in the on-premises data center. You want to migrate the application to GCP. You also want to ensure that the Security team does not lose their ability to monitor traffic to and from Compute Engine instances.

Which two products should you incorporate into the solution? (Choose two.)

A. VPC flow logs

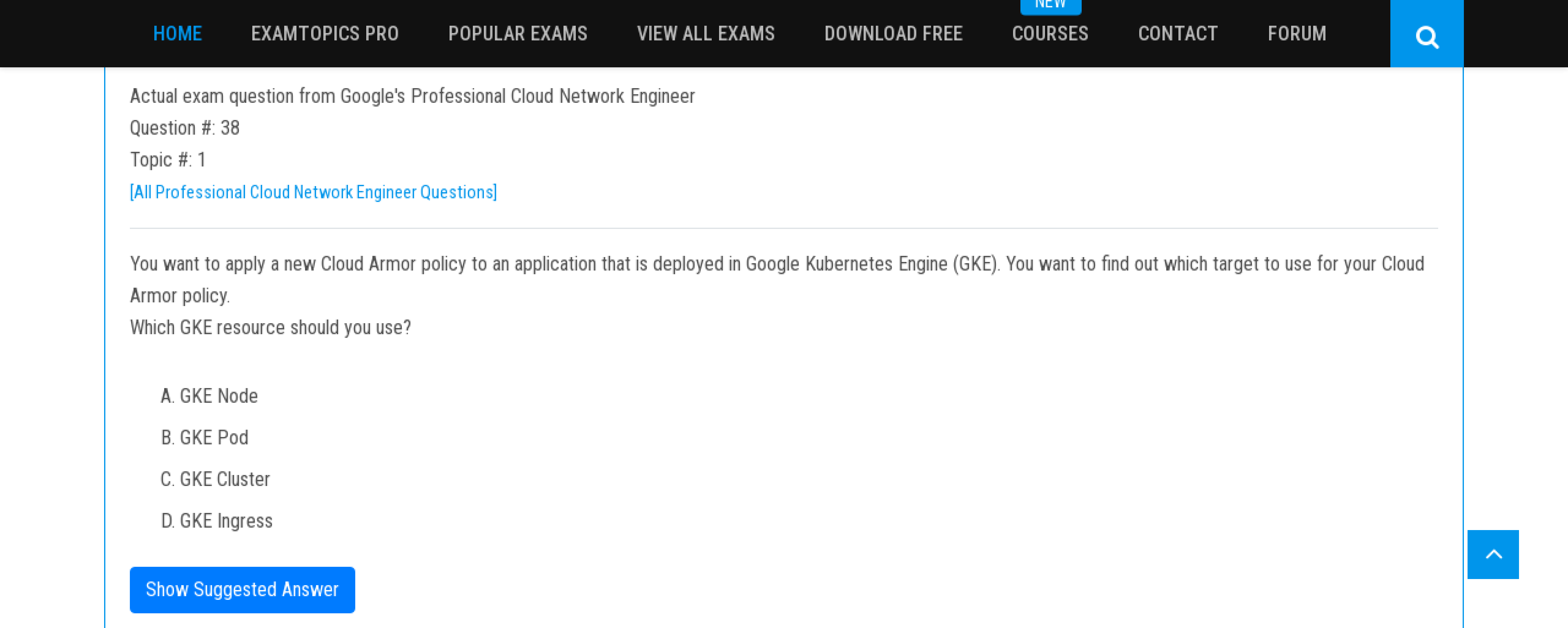
B. Firewall logs

C. Cloud Audit logs

D. Stackdriver Trace

E. Compute Engine instance system logs

Show Suggested Answer



Actual exam question from Google's Professional Cloud Network Engineer

Question #: 38

Topic #: 1

[All Professional Cloud Network Engineer Questions]

You want to apply a new Cloud Armor policy to an application that is deployed in Google Kubernetes Engine (GKE). You want to find out which target to use for your Cloud Armor policy.

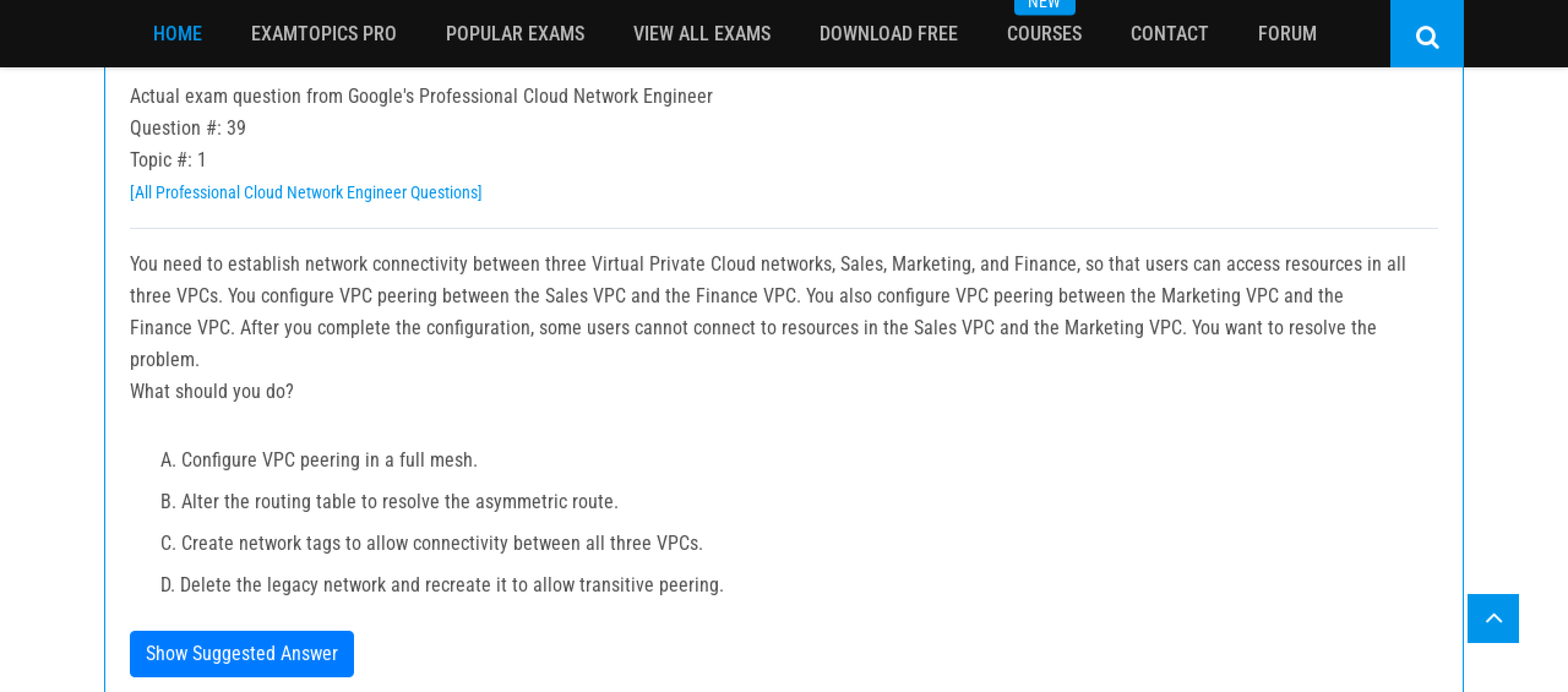
Which GKE resource should you use?

A. GKE Node

B. GKE Pod

C. GKE Cluster

D. GKE Ingress



Actual exam question from Google's Professional Cloud Network Engineer

Question #: 39

Topic #: 1

[All Professional Cloud Network Engineer Questions]

You need to establish network connectivity between three Virtual Private Cloud networks, Sales, Marketing, and Finance, so that users can access resources in all three VPCs. You configure VPC peering between the Sales VPC and the Finance VPC. You also configure VPC peering between the Marketing VPC and the Finance VPC. After you complete the configuration, some users cannot connect to resources in the Sales VPC and the Marketing VPC. You want to resolve the problem.

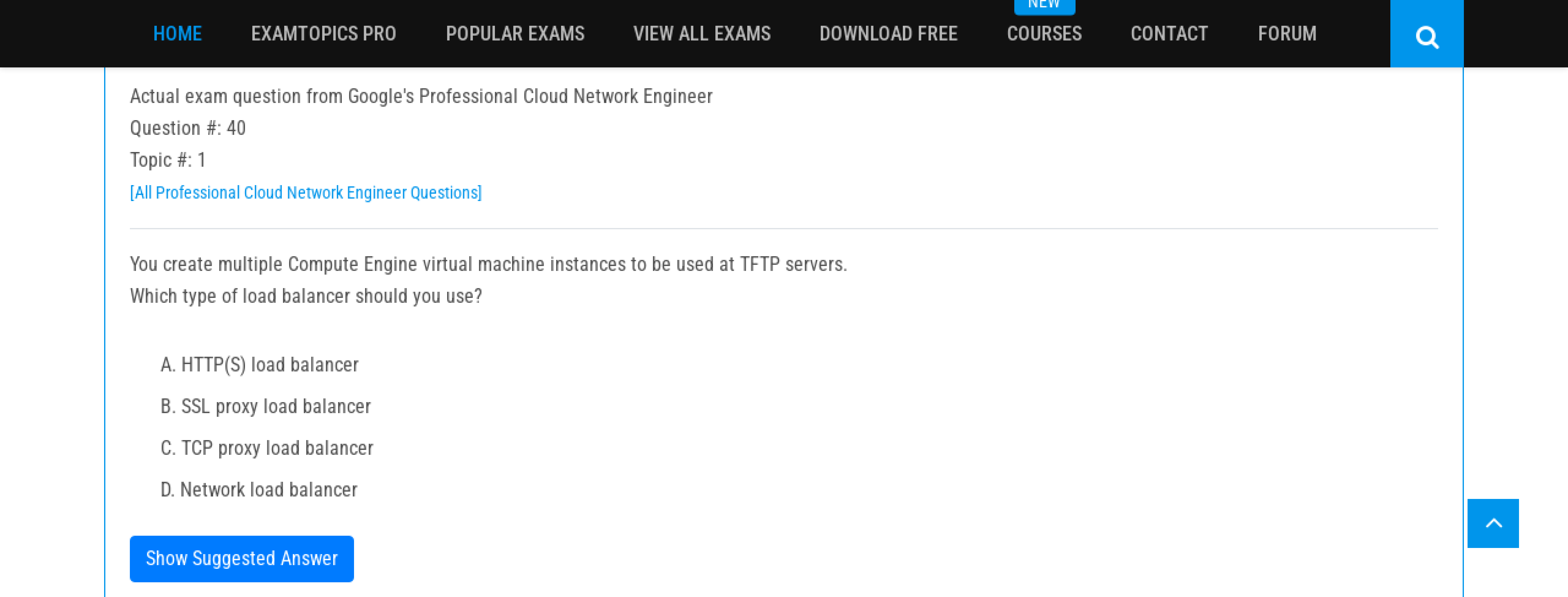
What should you do?

A. Configure VPC peering in a full mesh.

B. Alter the routing table to resolve the asymmetric route.

C. Create network tags to allow connectivity between all three VPCs.

D. Delete the legacy network and recreate it to allow transitive peering.



Actual exam question from Google's Professional Cloud Network Engineer

Question #: 40

Topic #: 1

[All Professional Cloud Network Engineer Questions]

You create multiple Compute Engine virtual machine instances to be used at TFTP servers.

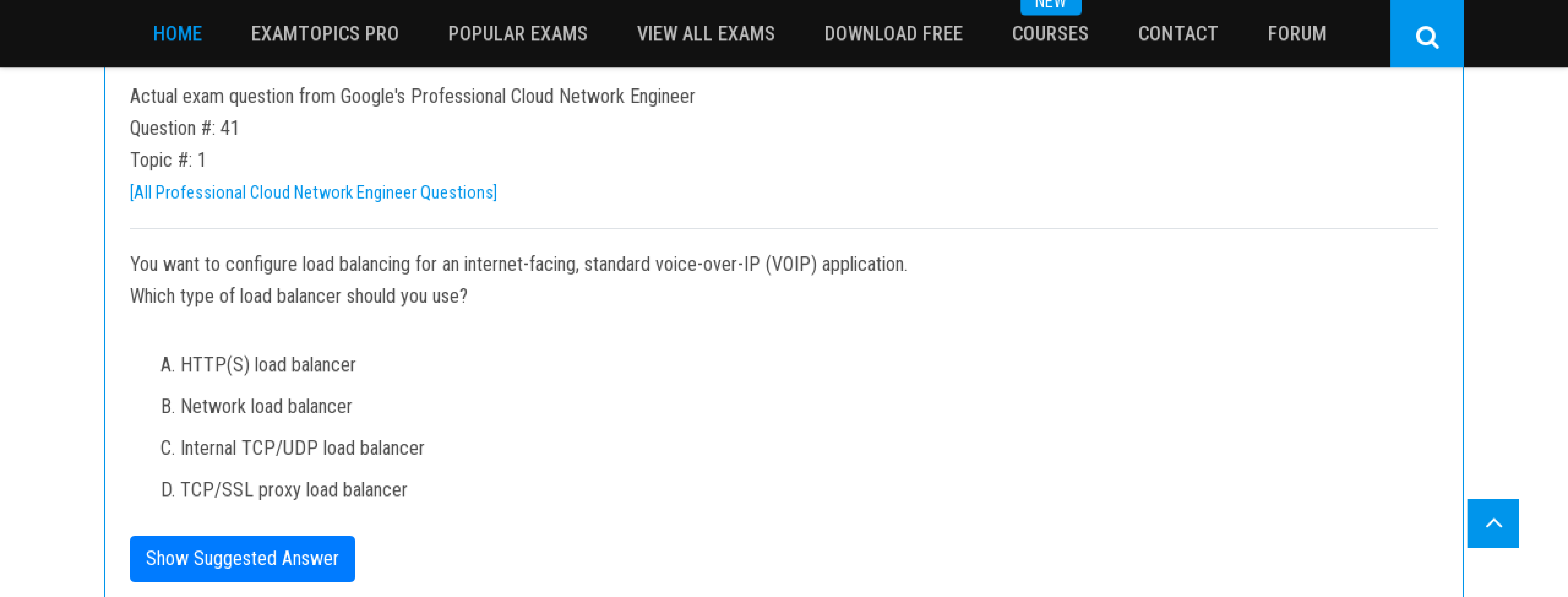
Which type of load balancer should you use?

A. HTTP(S) load balancer

B. SSL proxy load balancer

C. TCP proxy load balancer

D. Network load balancer



Actual exam question from Google's Professional Cloud Network Engineer

Question #: 41

Topic #: 1

[All Professional Cloud Network Engineer Questions]

You want to configure load balancing for an internet-facing, standard voice-over-IP (VOIP) application.

Which type of load balancer should you use?

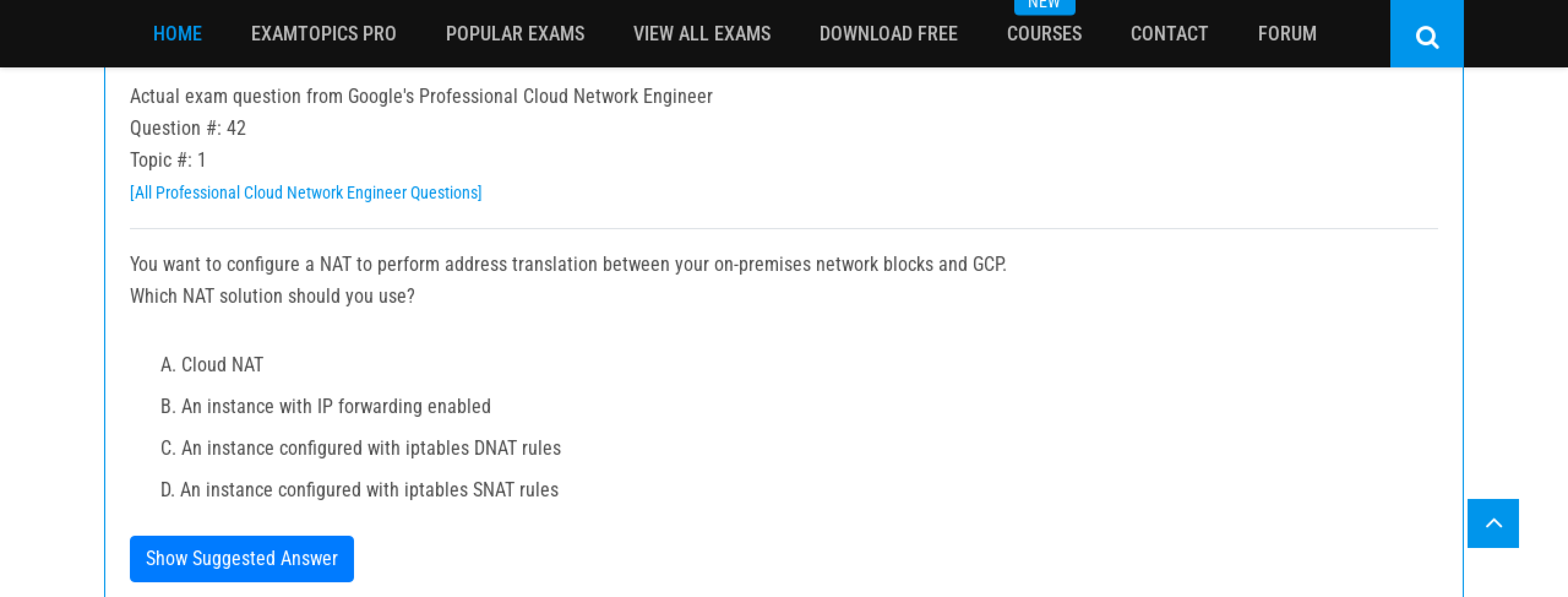
A. HTTP(S) load balancer

B. Network load balancer

C. Internal TCP/UDP load balancer

D. TCP/SSL proxy load balancer

Show Suggested Answer



Actual exam question from Google's Professional Cloud Network Engineer

Question #: 42

Topic #: 1

[All Professional Cloud Network Engineer Questions]

You want to configure a NAT to perform address translation between your on-premises network blocks and GCP.

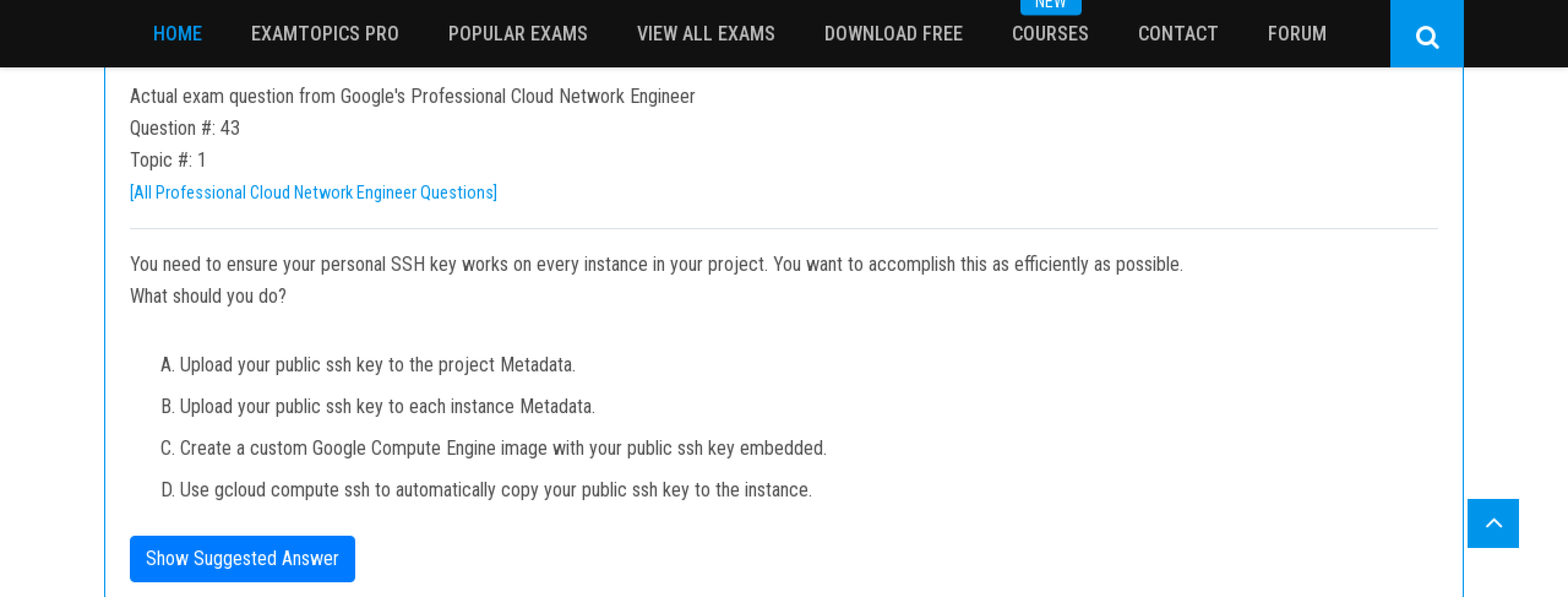
Which NAT solution should you use?

A. Cloud NAT

B. An instance with IP forwarding enabled

C. An instance configured with iptables DNAT rules

D. An instance configured with iptables SNAT rules



Actual exam question from Google's Professional Cloud Network Engineer

Question #: 43

Topic #: 1

[All Professional Cloud Network Engineer Questions]

You need to ensure your personal SSH key works on every instance in your project. You want to accomplish this as efficiently as possible.

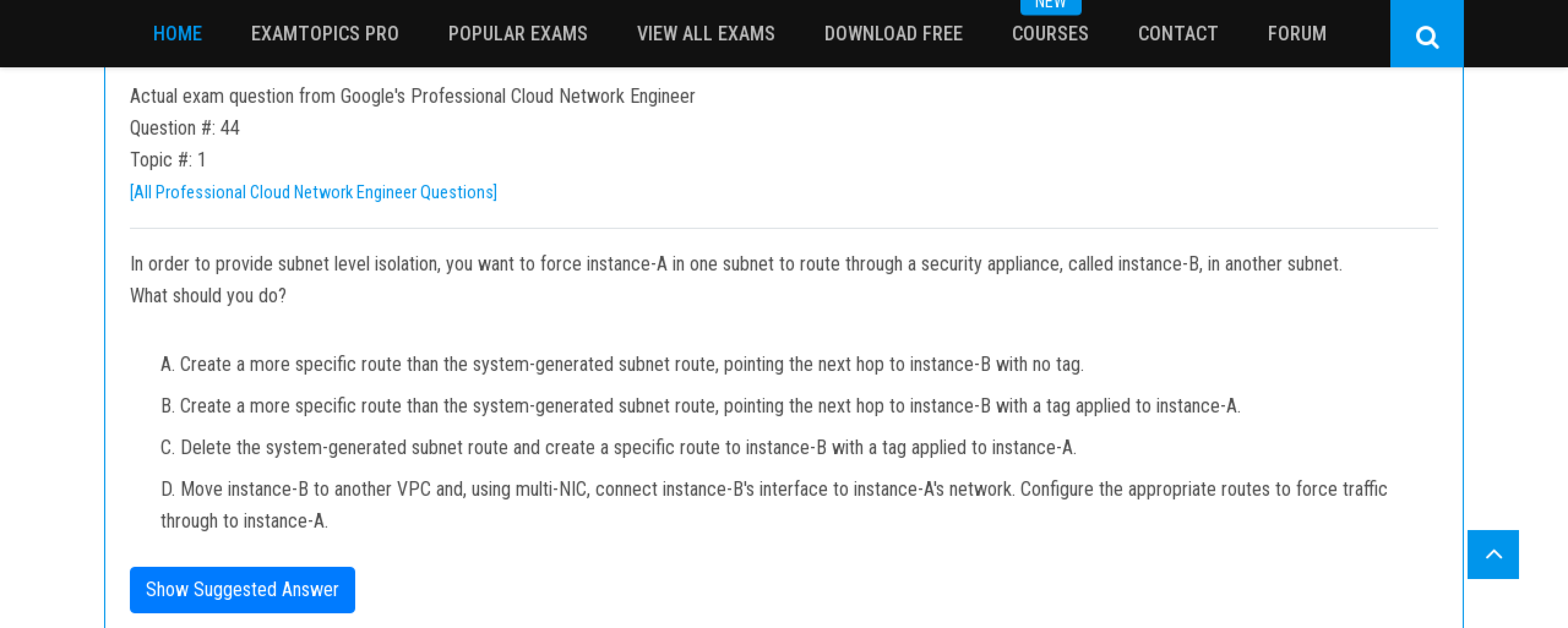
What should you do?

A. Upload your public ssh key to the project Metadata.

B. Upload your public ssh key to each instance Metadata.

C. Create a custom Google Compute Engine image with your public ssh key embedded.

D. Use gcloud compute ssh to automatically copy your public ssh key to the instance.



Actual exam question from Google's Professional Cloud Network Engineer

Question #: 44

Topic #: 1

[All Professional Cloud Network Engineer Questions]

In order to provide subnet level isolation, you want to force instance-A in one subnet to route through a security appliance, called instance-B, in another subnet.

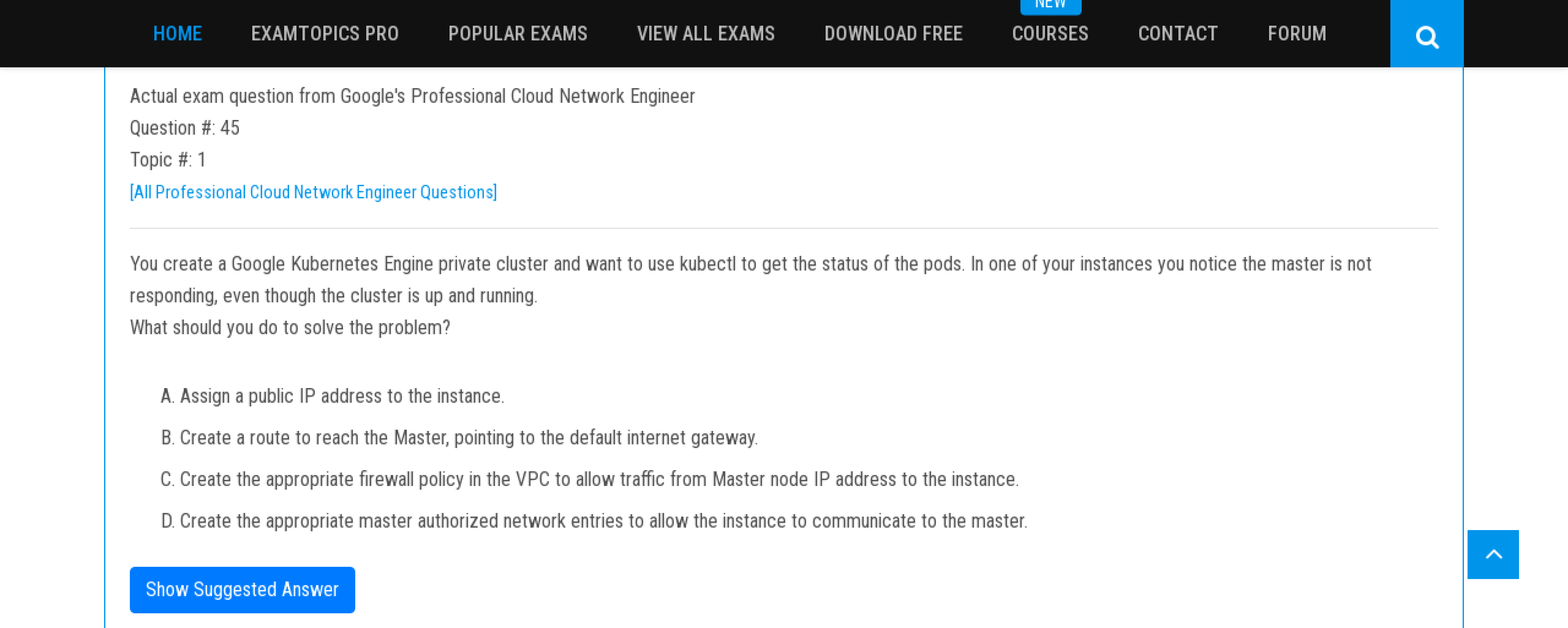
What should you do?

A. Create a more specific route than the system-generated subnet route, pointing the next hop to instance-B with no tag.

B. Create a more specific route than the system-generated subnet route, pointing the next hop to instance-B with a tag applied to instance-A.

C. Delete the system-generated subnet route and create a specific route to instance-B with a tag applied to instance-A.

D. Move instance-B to another VPC and, using multi-NIC, connect instance-B's interface to instance-A's network. Configure the appropriate routes to force traffic through to instance-A.



Actual exam question from Google's Professional Cloud Network Engineer
Question #: 45
Topic #: 1
[All Professional Cloud Network Engineer Questions]

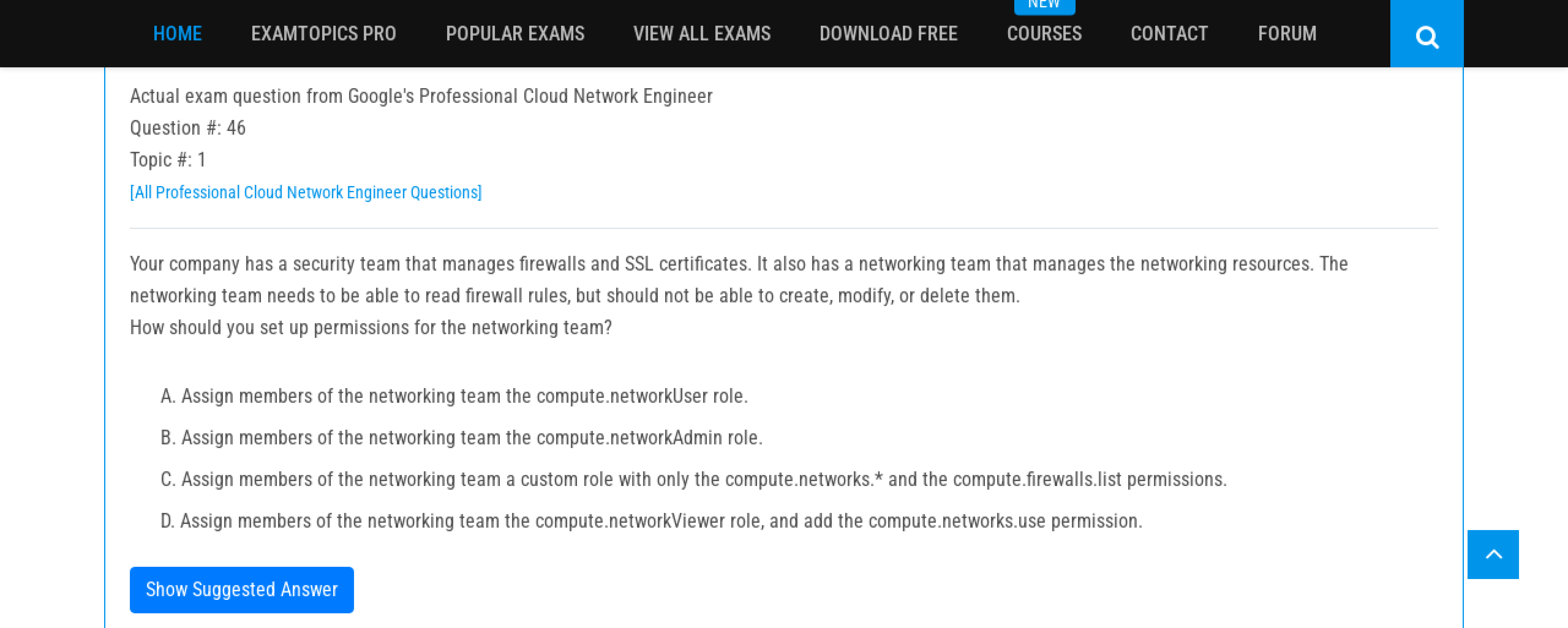
You create a Google Kubernetes Engine private cluster and want to use kubectl to get the status of the pods. In one of your instances you notice the master is not responding, even though the cluster is up and running.
What should you do to solve the problem?

A. Assign a public IP address to the instance.

B. Create a route to reach the Master, pointing to the default internet gateway.

C. Create the appropriate firewall policy in the VPC to allow traffic from Master node IP address to the instance.

D. Create the appropriate master authorized network entries to allow the instance to communicate to the master.



Actual exam question from Google's Professional Cloud Network Engineer

Question #: 46

Topic #: 1

[All Professional Cloud Network Engineer Questions]

Your company has a security team that manages firewalls and SSL certificates. It also has a networking team that manages the networking resources. The networking team needs to be able to read firewall rules, but should not be able to create, modify, or delete them.

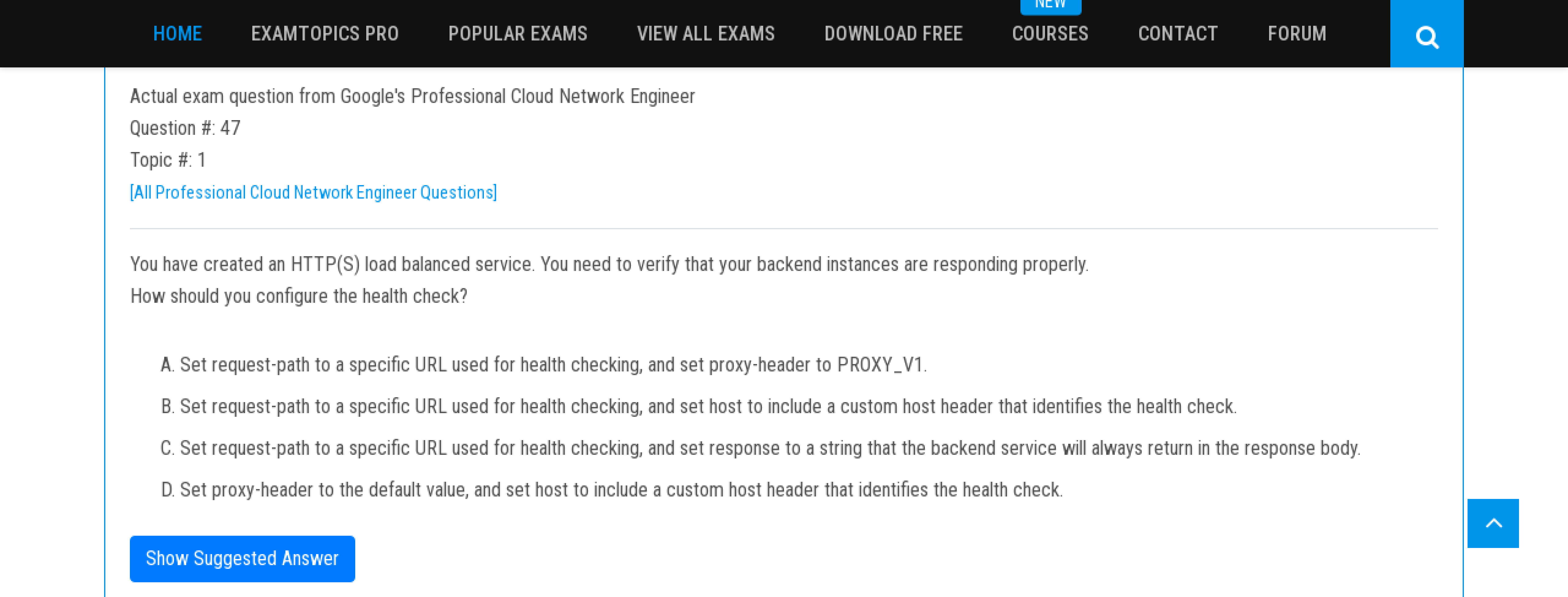
How should you set up permissions for the networking team?

A. Assign members of the networking team the compute.networkUser role.

B. Assign members of the networking team the compute.networkAdmin role.

C. Assign members of the networking team a custom role with only the compute.networks.* and the compute.firewalls.list permissions.

D. Assign members of the networking team the compute.networkViewer role, and add the compute.networks.use permission.



Actual exam question from Google's Professional Cloud Network Engineer

Question #: 47

Topic #: 1

[All Professional Cloud Network Engineer Questions]

You have created an HTTP(S) load balanced service. You need to verify that your backend instances are responding properly.

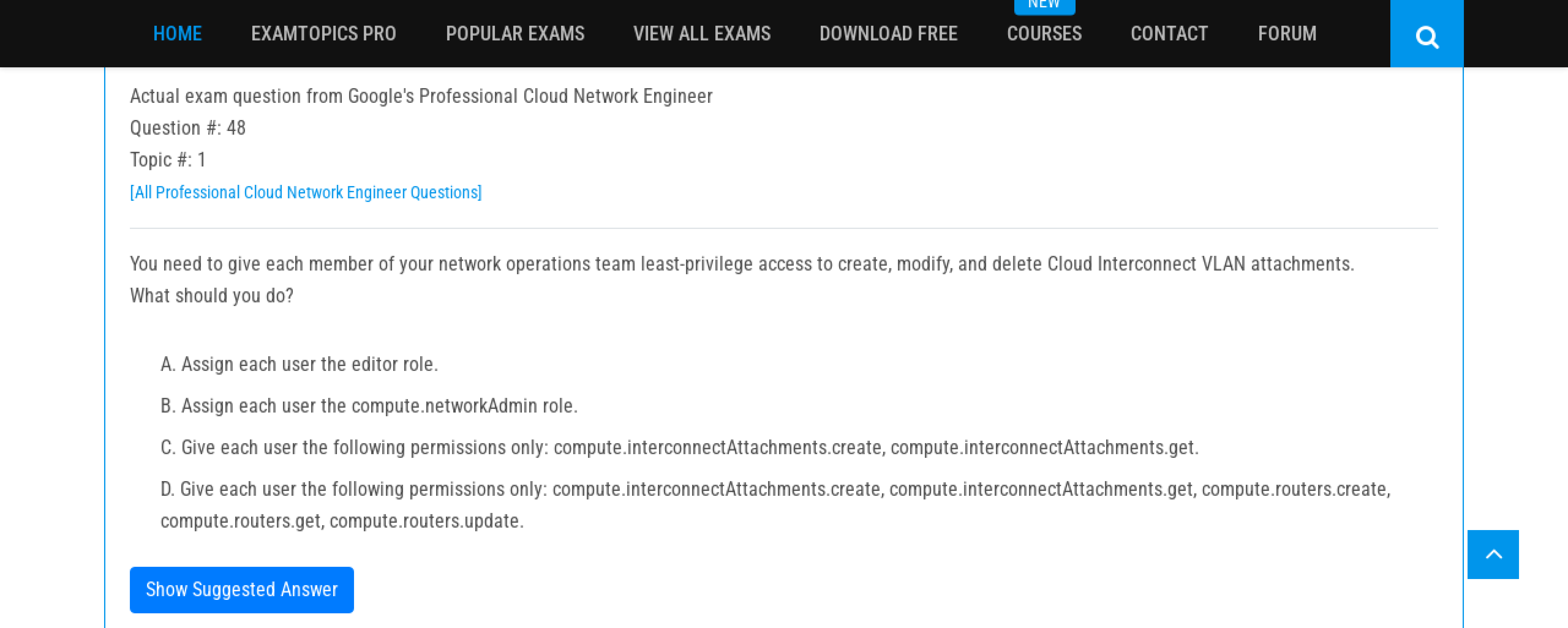
How should you configure the health check?

A. Set request-path to a specific URL used for health checking, and set proxy-header to PROXY_V1.

B. Set request-path to a specific URL used for health checking, and set host to include a custom host header that identifies the health check.

C. Set request-path to a specific URL used for health checking, and set response to a string that the backend service will always return in the response body.

D. Set proxy-header to the default value, and set host to include a custom host header that identifies the health check.



Actual exam question from Google's Professional Cloud Network Engineer
Question #: 48
Topic #: 1
[All Professional Cloud Network Engineer Questions]

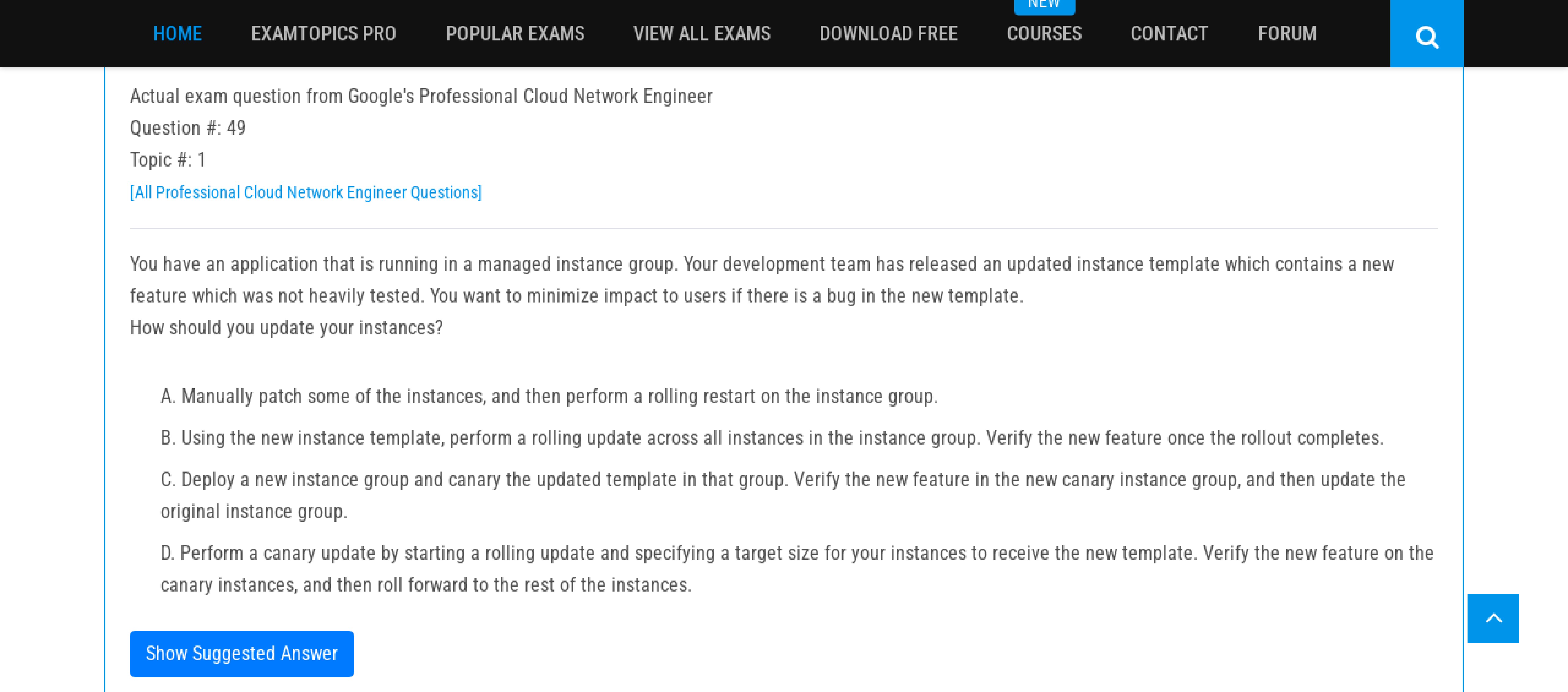
You need to give each member of your network operations team least-privilege access to create, modify, and delete Cloud Interconnect VLAN attachments.
What should you do?

A. Assign each user the editor role.

B. Assign each user the compute.networkAdmin role.

C. Give each user the following permissions only: compute.interconnectAttachments.create, compute.interconnectAttachments.get.

D. Give each user the following permissions only: compute.interconnectAttachments.create, compute.interconnectAttachments.get, compute.routers.create, compute.routers.get, compute.routers.update.



Actual exam question from Google's Professional Cloud Network Engineer

Question #: 49

Topic #: 1

[All Professional Cloud Network Engineer Questions]

You have an application that is running in a managed instance group. Your development team has released an updated instance template which contains a new feature which was not heavily tested. You want to minimize impact to users if there is a bug in the new template.

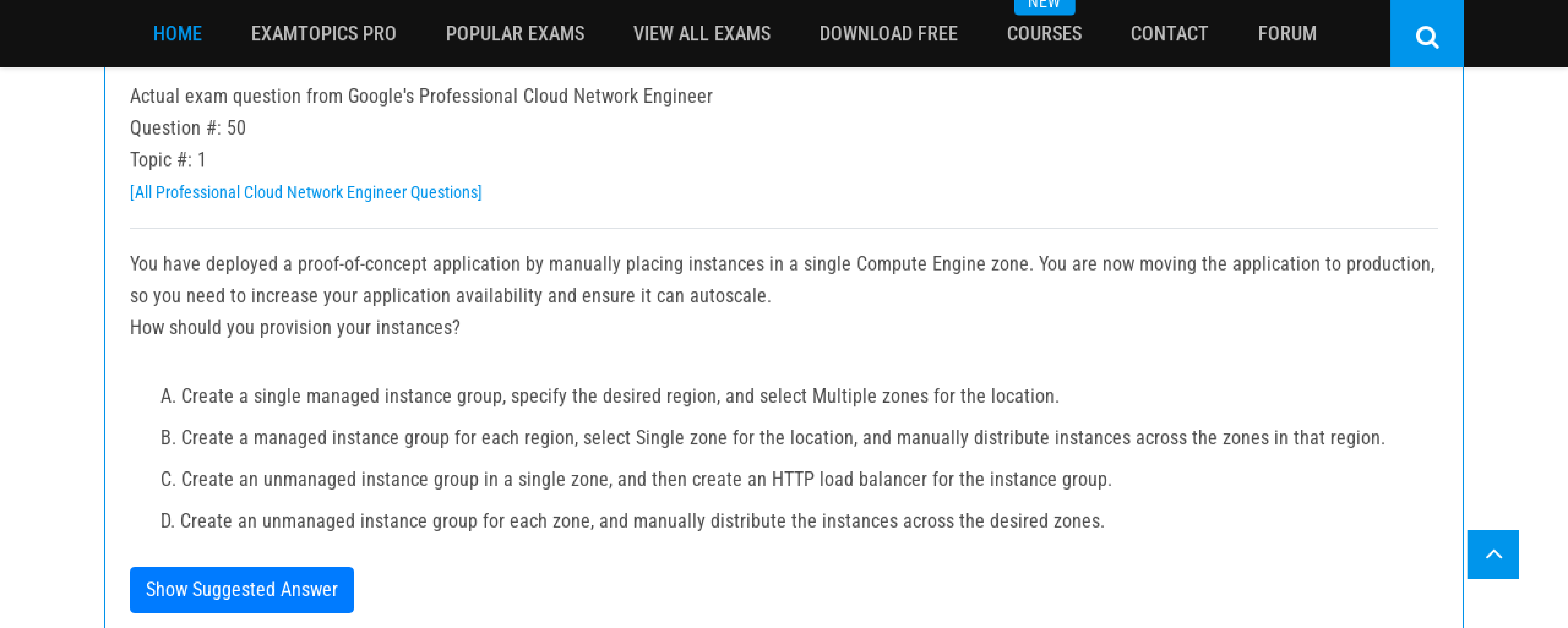
How should you update your instances?

A. Manually patch some of the instances, and then perform a rolling restart on the instance group.

B. Using the new instance template, perform a rolling update across all instances in the instance group. Verify the new feature once the rollout completes.

C. Deploy a new instance group and canary the updated template in that group. Verify the new feature in the new canary instance group, and then update the original instance group.

D. Perform a canary update by starting a rolling update and specifying a target size for your instances to receive the new template. Verify the new feature on the canary instances, and then roll forward to the rest of the instances.



Actual exam question from Google's Professional Cloud Network Engineer

Question #: 50

Topic #: 1

[All Professional Cloud Network Engineer Questions]

You have deployed a proof-of-concept application by manually placing instances in a single Compute Engine zone. You are now moving the application to production, so you need to increase your application availability and ensure it can autoscale.

How should you provision your instances?

A. Create a single managed instance group, specify the desired region, and select Multiple zones for the location.

B. Create a managed instance group for each region, select Single zone for the location, and manually distribute instances across the zones in that region.

C. Create an unmanaged instance group in a single zone, and then create an HTTP load balancer for the instance group.

D. Create an unmanaged instance group for each zone, and manually distribute the instances across the desired zones.

Actual exam question from Google's Professional Cloud Network Engineer

Question #: 51

Topic #: 1

[All Professional Cloud Network Engineer Questions]

You have a storage bucket that contains two objects. Cloud CDN is enabled on the bucket, and both objects have been successfully cached. Now you want to make sure that one of the two objects will not be cached anymore, and will always be served to the internet directly from the origin.

What should you do?

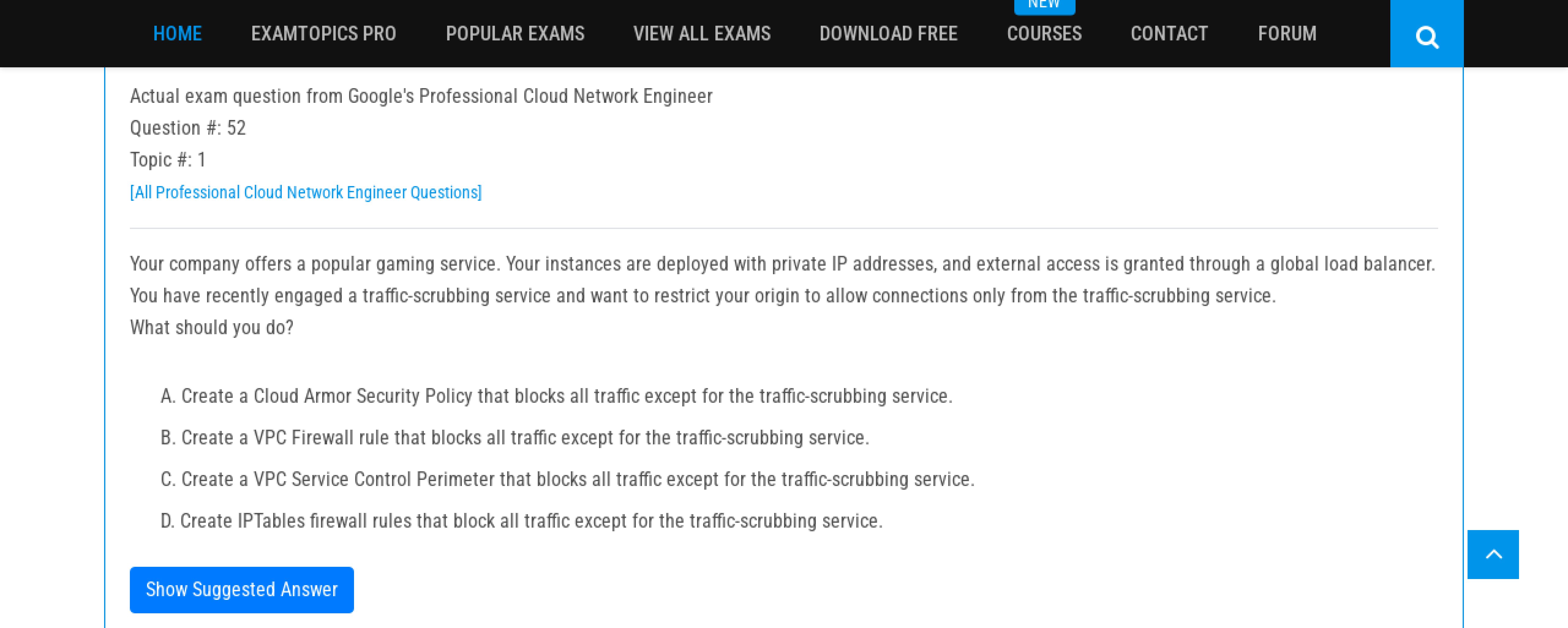
A. Ensure that the object you don't want to be cached anymore is not shared publicly.

B. Create a new storage bucket, and move the object you don't want to be checked anymore inside it. Then edit the bucket setting and enable the private attribute.

C. Add an appropriate lifecycle rule on the storage bucket containing the two objects.

D. Add a Cache-Control entry with value private to the metadata of the object you don't want to be cached anymore. Invalidate all the previously cached copies.

Show Suggested Answer



Actual exam question from Google's Professional Cloud Network Engineer
Question #: 52
Topic #: 1

[All Professional Cloud Network Engineer Questions]

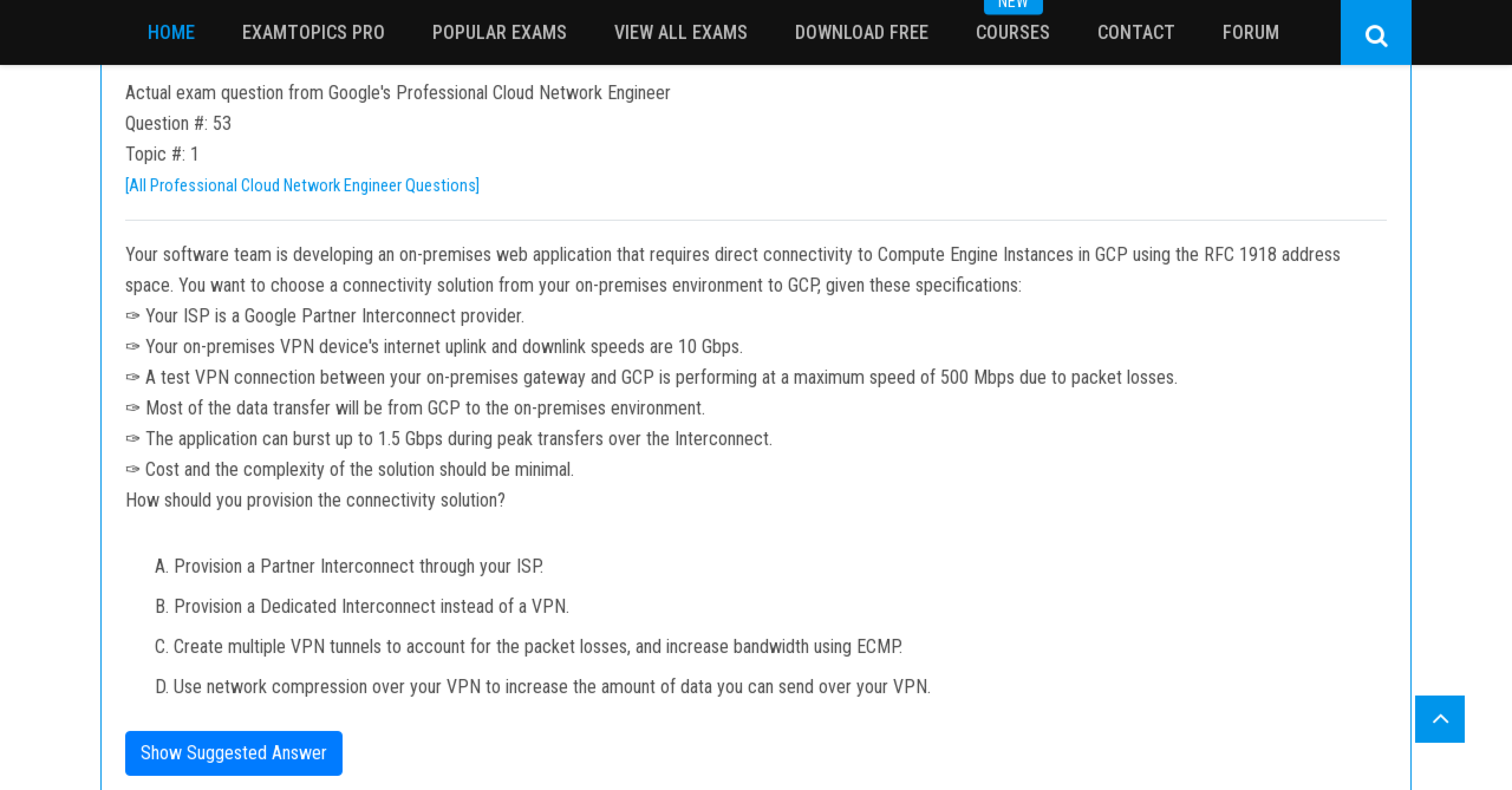
Your company offers a popular gaming service. Your instances are deployed with private IP addresses, and external access is granted through a global load balancer. You have recently engaged a traffic-scrubbing service and want to restrict your origin to allow connections only from the traffic-scrubbing service.
What should you do?

A. Create a Cloud Armor Security Policy that blocks all traffic except for the traffic-scrubbing service.

B. Create a VPC Firewall rule that blocks all traffic except for the traffic-scrubbing service.

C. Create a VPC Service Control Perimeter that blocks all traffic except for the traffic-scrubbing service.

D. Create IPTables firewall rules that block all traffic except for the traffic-scrubbing service.



Actual exam question from Google's Professional Cloud Network Engineer

Question #: 53

Topic #: 1

[All Professional Cloud Network Engineer Questions]

Your software team is developing an on-premises web application that requires direct connectivity to Compute Engine Instances in GCP using the RFC 1918 address space. You want to choose a connectivity solution from your on-premises environment to GCP, given these specifications:

✑ Your ISP is a Google Partner Interconnect provider.

✑ Your on-premises VPN device's internet uplink and downlink speeds are 10 Gbps.

✑ A test VPN connection between your on-premises gateway and GCP is performing at a maximum speed of 500 Mbps due to packet losses.

✑ Most of the data transfer will be from GCP to the on-premises environment.

✑ The application can burst up to 1.5 Gbps during peak transfers over the Interconnect.

✑ Cost and the complexity of the solution should be minimal.

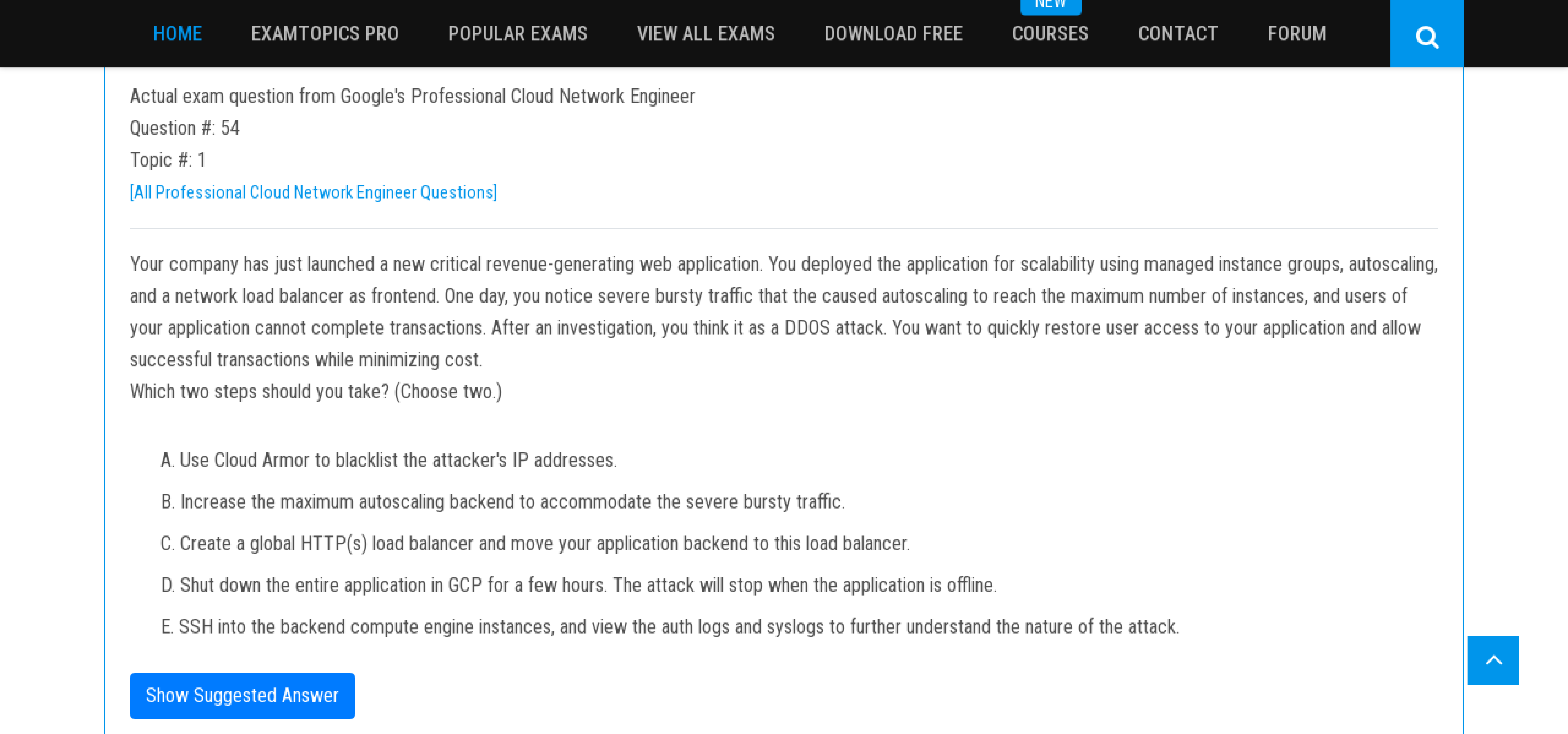
How should you provision the connectivity solution?

A. Provision a Partner Interconnect through your ISP.

B. Provision a Dedicated Interconnect instead of a VPN.

C. Create multiple VPN tunnels to account for the packet losses, and increase bandwidth using ECMP.

D. Use network compression over your VPN to increase the amount of data you can send over your VPN.



Actual exam question from Google's Professional Cloud Network Engineer

Question #: 54

Topic #: 1

[All Professional Cloud Network Engineer Questions]

Your company has just launched a new critical revenue-generating web application. You deployed the application for scalability using managed instance groups, autoscaling, and a network load balancer as frontend. One day, you notice severe bursty traffic that the caused autoscaling to reach the maximum number of instances, and users of your application cannot complete transactions. After an investigation, you think it as a DDOS attack. You want to quickly restore user access to your application and allow successful transactions while minimizing cost.

Which two steps should you take? (Choose two.)

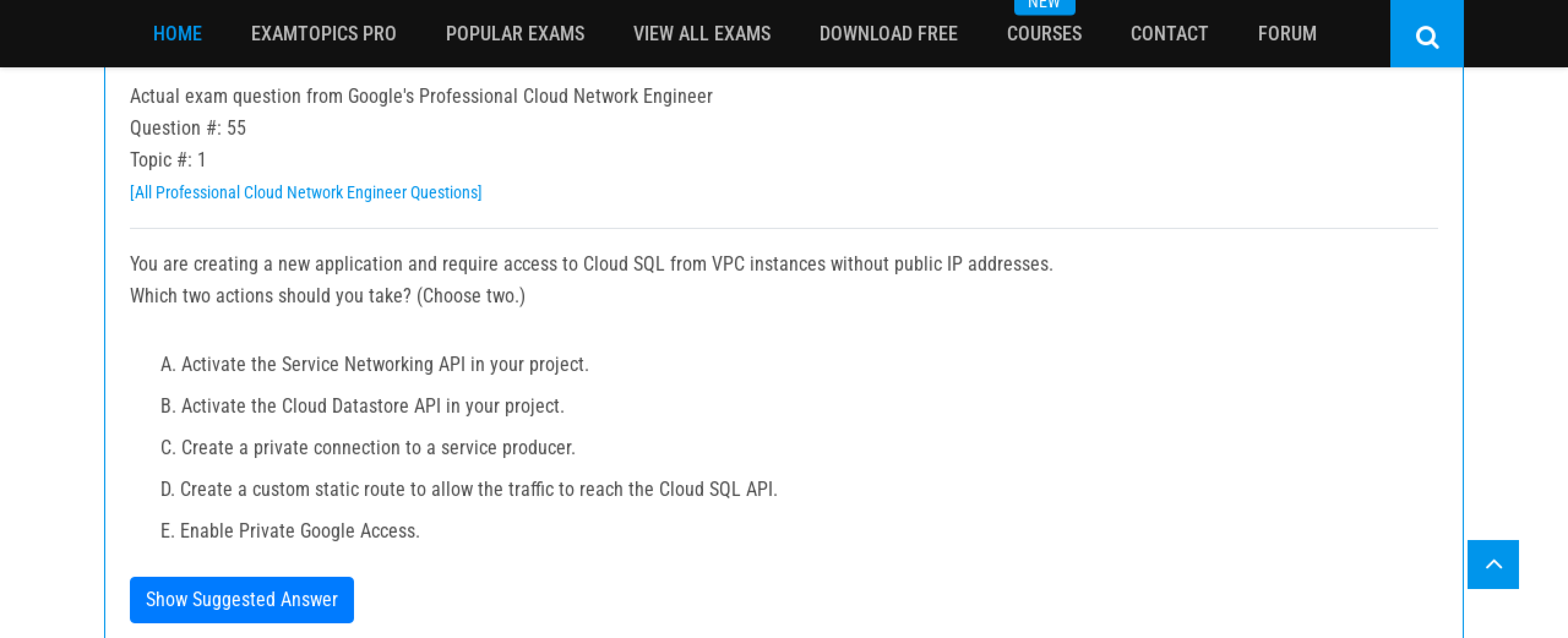
A. Use Cloud Armor to blacklist the attacker's IP addresses.

B. Increase the maximum autoscaling backend to accommodate the severe bursty traffic.

C. Create a global HTTP(s) load balancer and move your application backend to this load balancer.

D. Shut down the entire application in GCP for a few hours. The attack will stop when the application is offline.

E. SSH into the backend compute engine instances, and view the auth logs and syslogs to further understand the nature of the attack.



Actual exam question from Google's Professional Cloud Network Engineer

Question #: 55

Topic #: 1

[All Professional Cloud Network Engineer Questions]

You are creating a new application and require access to Cloud SQL from VPC instances without public IP addresses.

Which two actions should you take? (Choose two.)

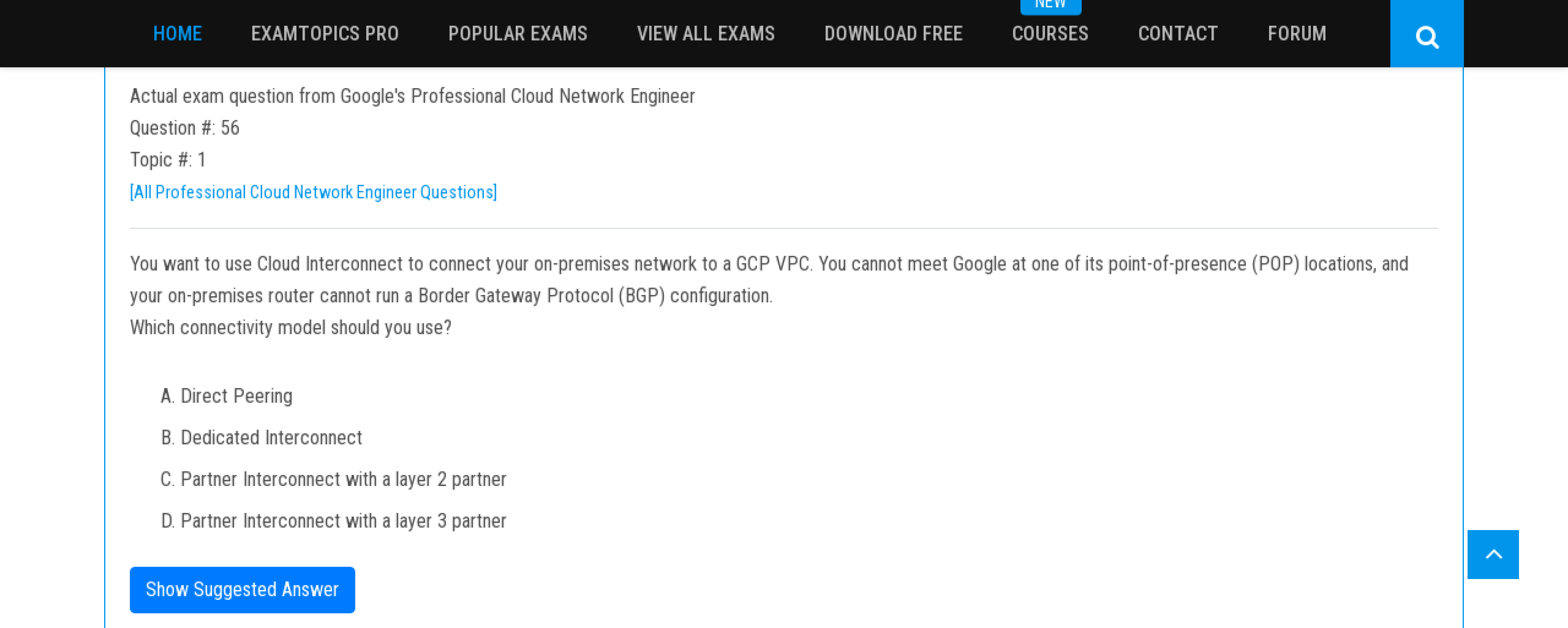
A. Activate the Service Networking API in your project.

B. Activate the Cloud Datastore API in your project.

C. Create a private connection to a service producer.

D. Create a custom static route to allow the traffic to reach the Cloud SQL API.

E. Enable Private Google Access.



Actual exam question from Google's Professional Cloud Network Engineer
Question #: 56
Topic #: 1
[All Professional Cloud Network Engineer Questions]

You want to use Cloud Interconnect to connect your on-premises network to a GCP VPC. You cannot meet Google at one of its point-of-presence (POP) locations, and your on-premises router cannot run a Border Gateway Protocol (BGP) configuration.
Which connectivity model should you use?

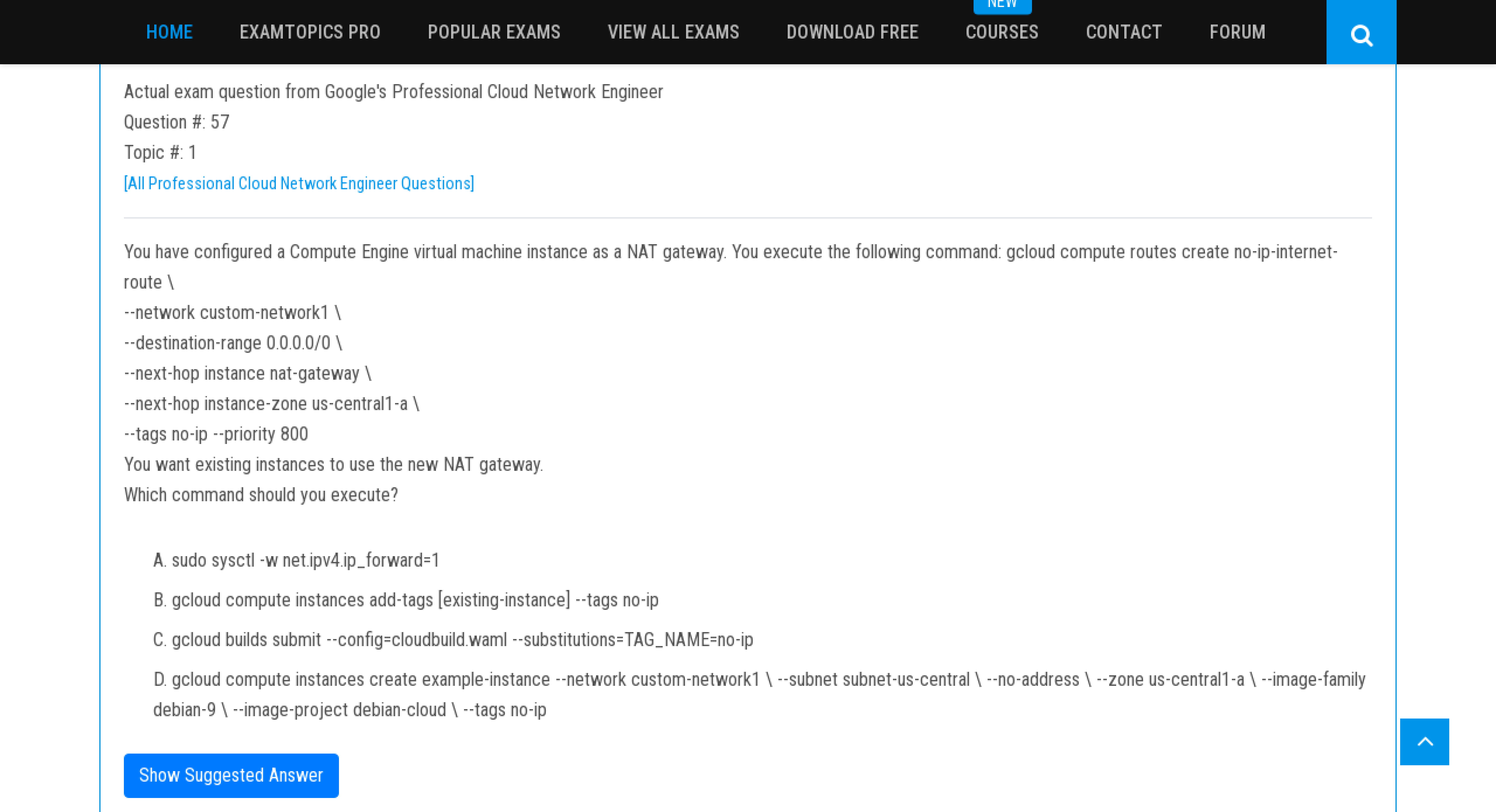
A. Direct Peering

B. Dedicated Interconnect

C. Partner Interconnect with a layer 2 partner

D. Partner Interconnect with a layer 3 partner

Show Suggested Answer



Actual exam question from Google's Professional Cloud Network Engineer
Question #: 57
Topic #: 1
[All Professional Cloud Network Engineer Questions]

You have configured a Compute Engine virtual machine instance as a NAT gateway. You execute the following command:

```
gcloud compute routes create no-ip-internet-route \
--network custom-network1 \
--destination-range 0.0.0.0/0 \
--next-hop instance nat-gateway \
--next-hop instance-zone us-central1-a \
--tags no-ip --priority 800
```

You want existing instances to use the new NAT gateway.
Which command should you execute?

A. sudo sysctl -w net.ipv4.ip_forward=1

B. gcloud compute instances add-tags [existing-instance] --tags no-ip

C. gcloud builds submit --config=cloudbuild.waml --substitutions=TAG_NAME=no-ip

D. gcloud compute instances create example-instance --network custom-network1 \ --subnet subnet-us-central \ --no-address \ --zone us-central1-a \ --image-family debian-9 \ --image-project debian-cloud \ --tags no-ip

Actual exam question from Google's Professional Cloud Network Engineer

Question #: 58

Topic #: 1

[All Professional Cloud Network Engineer Questions]

You need to configure a static route to an on-premises resource behind a Cloud VPN gateway that is configured for policy-based routing using the gcloud command.

Which next hop should you choose?

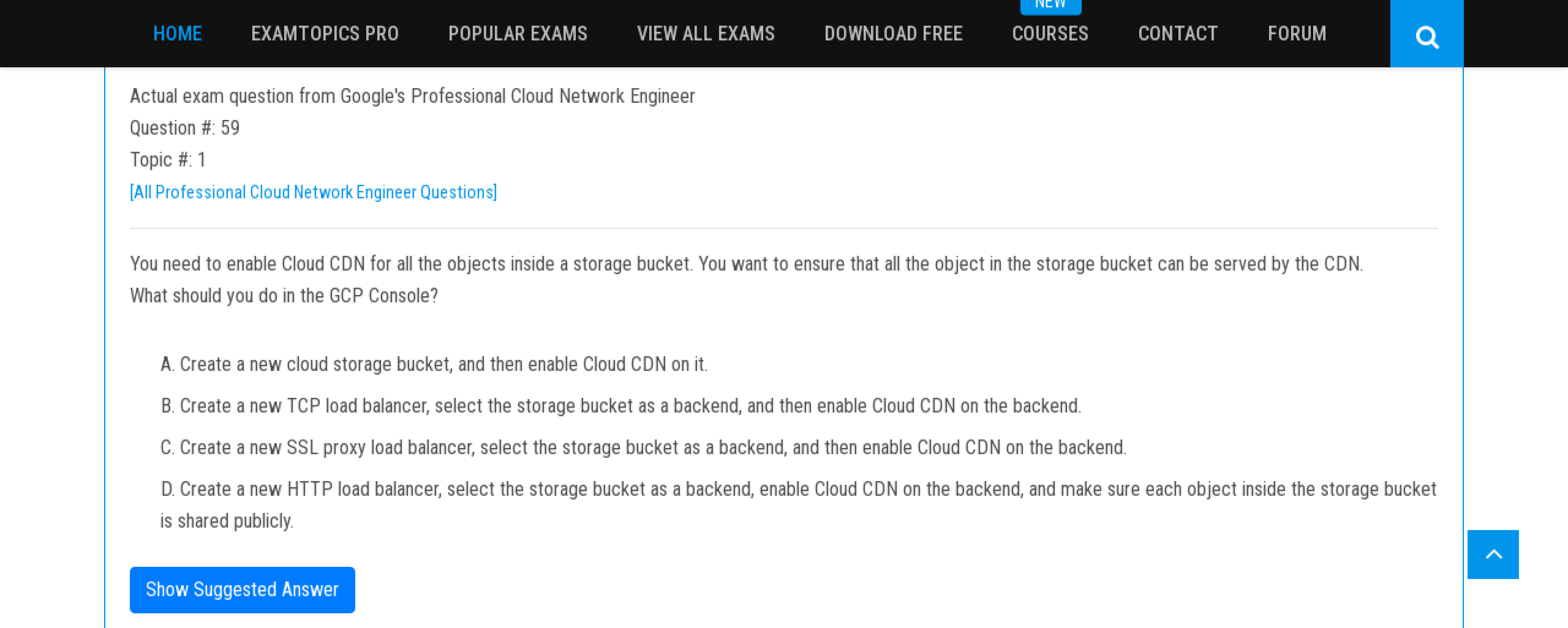
A. The default internet gateway

B. The IP address of the Cloud VPN gateway

C. The name and region of the Cloud VPN tunnel

D. The IP address of the instance on the remote side of the VPN tunnel

Show Suggested Answer



Actual exam question from Google's Professional Cloud Network Engineer

Question #: 59

Topic #: 1

[All Professional Cloud Network Engineer Questions]

You need to enable Cloud CDN for all the objects inside a storage bucket. You want to ensure that all the object in the storage bucket can be served by the CDN.
What should you do in the GCP Console?

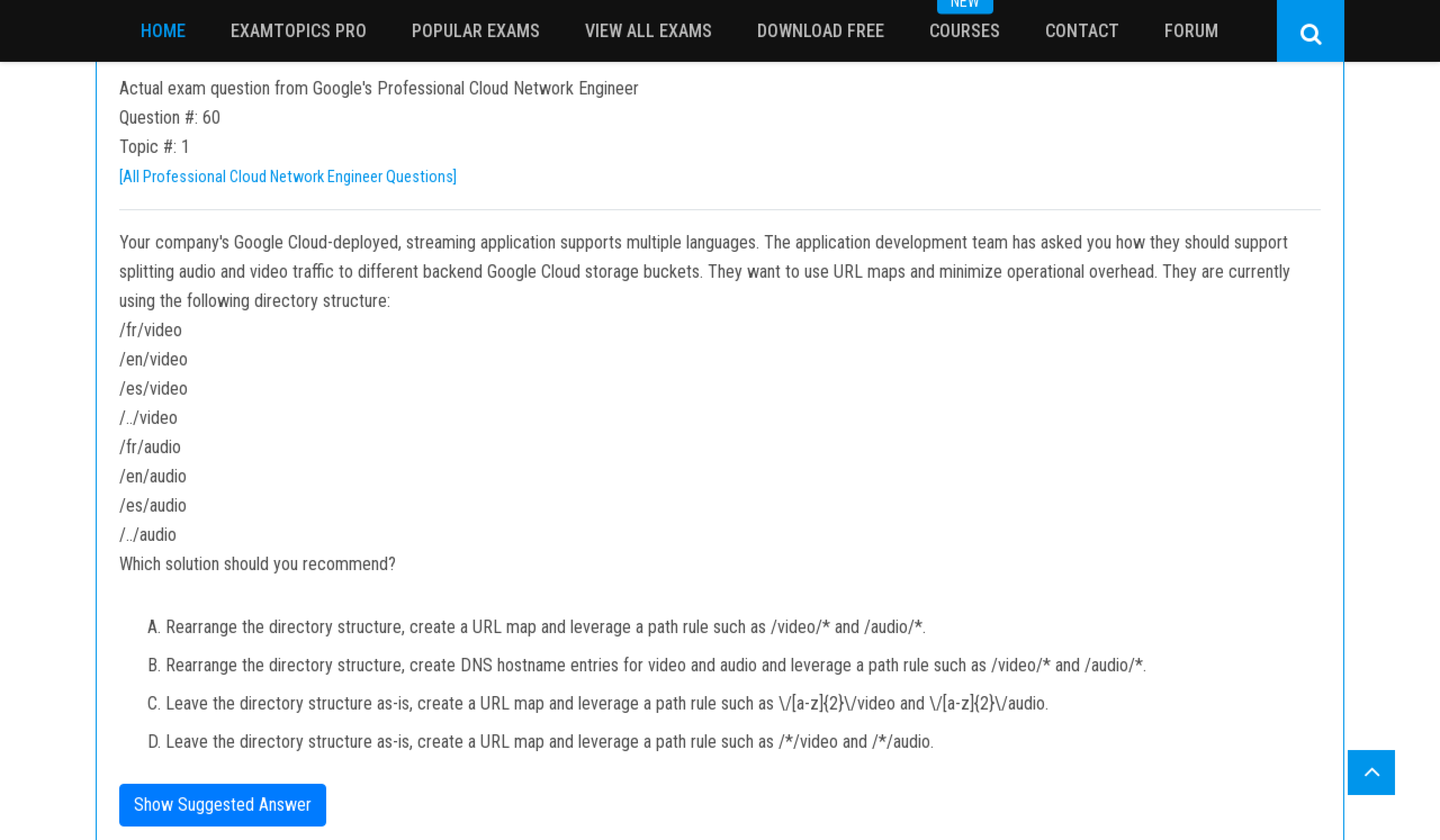
A. Create a new cloud storage bucket, and then enable Cloud CDN on it.

B. Create a new TCP load balancer, select the storage bucket as a backend, and then enable Cloud CDN on the backend.

C. Create a new SSL proxy load balancer, select the storage bucket as a backend, and then enable Cloud CDN on the backend.

D. Create a new HTTP load balancer, select the storage bucket as a backend, enable Cloud CDN on the backend, and make sure each object inside the storage bucket is shared publicly.

Show Suggested Answer



Actual exam question from Google's Professional Cloud Network Engineer
Question #: 60
Topic #: 1
[All Professional Cloud Network Engineer Questions]

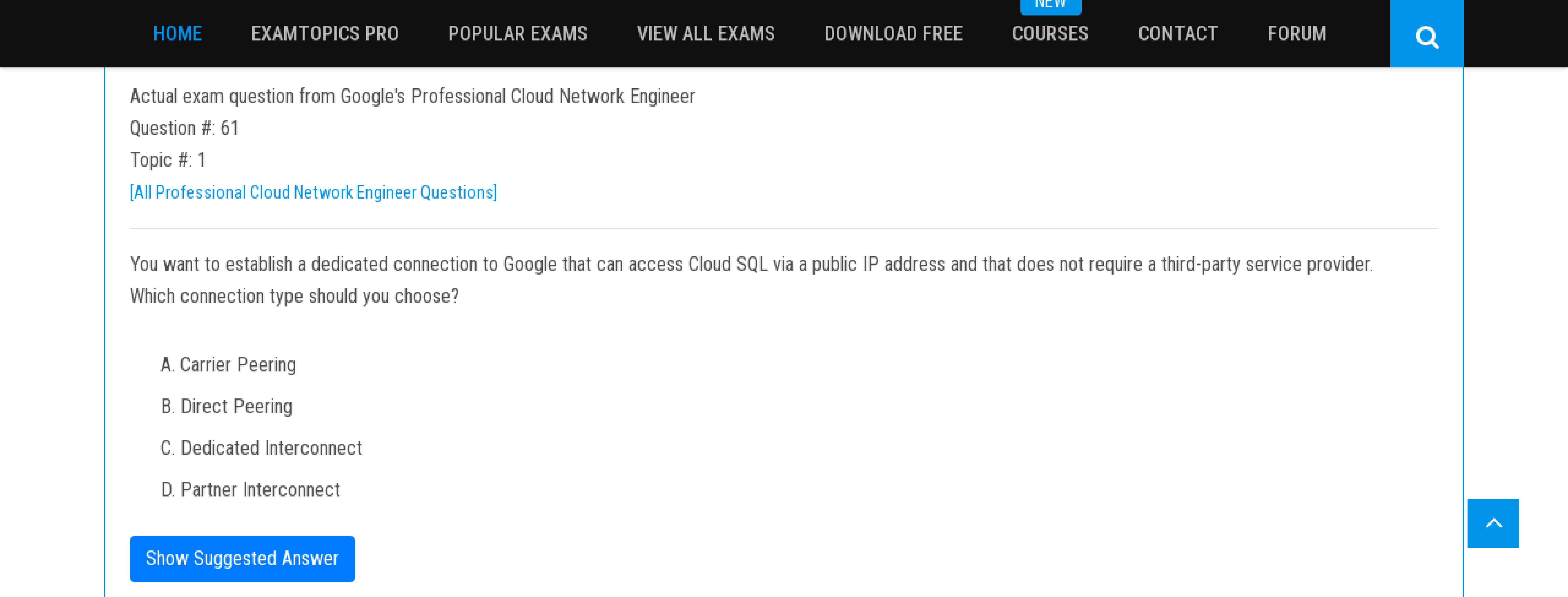
Your company's Google Cloud-deployed, streaming application supports multiple languages. The application development team has asked you how they should support splitting audio and video traffic to different backend Google Cloud storage buckets. They want to use URL maps and minimize operational overhead. They are currently using the following directory structure:
/fr/video
/en/video
/es/video
/../video
/fr/audio
/en/audio
/es/audio
/../audio
Which solution should you recommend?

A. Rearrange the directory structure, create a URL map and leverage a path rule such as /video/* and /audio/*.

B. Rearrange the directory structure, create DNS hostname entries for video and audio and leverage a path rule such as /video/* and /audio/*.

C. Leave the directory structure as-is, create a URL map and leverage a path rule such as \/[a-z]{2}\/video and \/[a-z]{2}\/audio.

D. Leave the directory structure as-is, create a URL map and leverage a path rule such as /*/video and /*/audio.



Actual exam question from Google's Professional Cloud Network Engineer

Question #: 61

Topic #: 1

[All Professional Cloud Network Engineer Questions]

You want to establish a dedicated connection to Google that can access Cloud SQL via a public IP address and that does not require a third-party service provider.

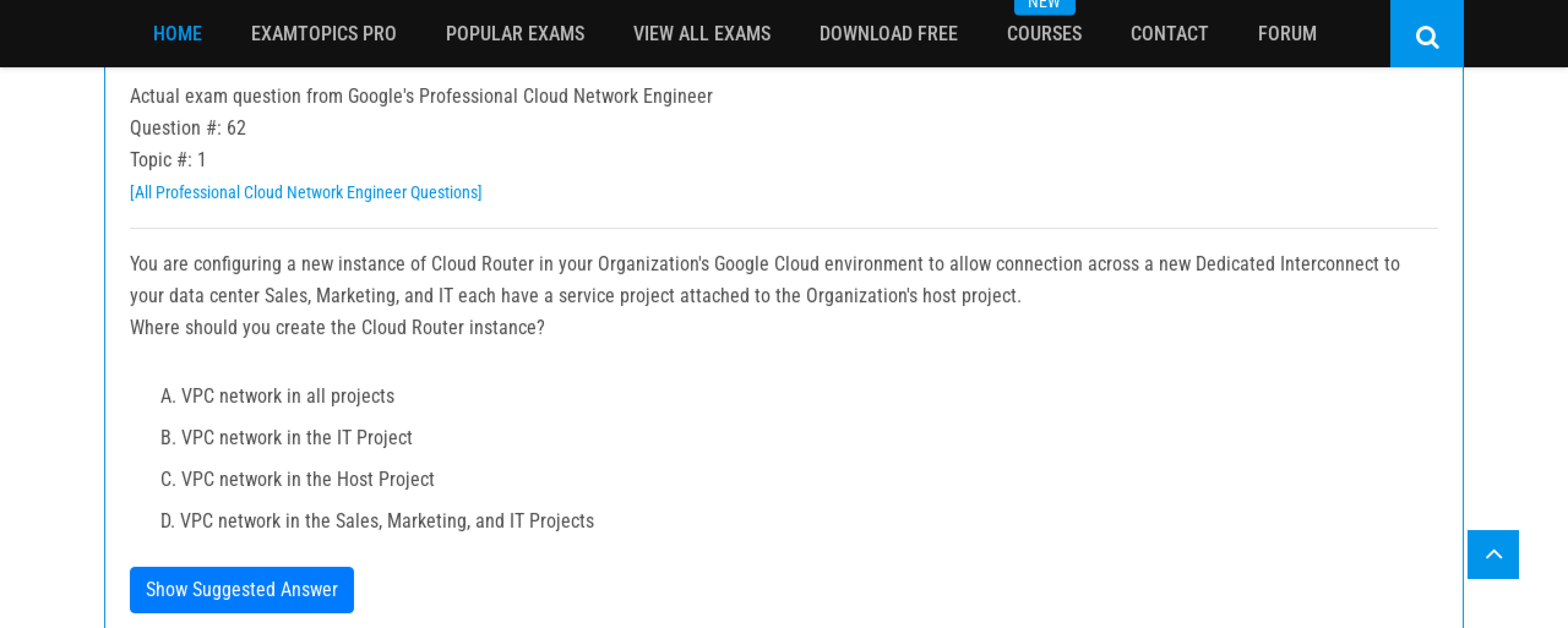
Which connection type should you choose?

A. Carrier Peering

B. Direct Peering

C. Dedicated Interconnect

D. Partner Interconnect



Actual exam question from Google's Professional Cloud Network Engineer
Question #: 62
Topic #: 1
[All Professional Cloud Network Engineer Questions]

You are configuring a new instance of Cloud Router in your Organization's Google Cloud environment to allow connection across a new Dedicated Interconnect to your data center Sales, Marketing, and IT each have a service project attached to the Organization's host project.
Where should you create the Cloud Router instance?

A. VPC network in all projects

B. VPC network in the IT Project

C. VPC network in the Host Project

D. VPC network in the Sales, Marketing, and IT Projects

Actual exam question from Google's Professional Cloud Network Engineer

Question #: 63

Topic #: 1

[All Professional Cloud Network Engineer Questions]

You created a new VPC for your development team. You want to allow access to the resources in this VPC via SSH only.

How should you configure your firewall rules?

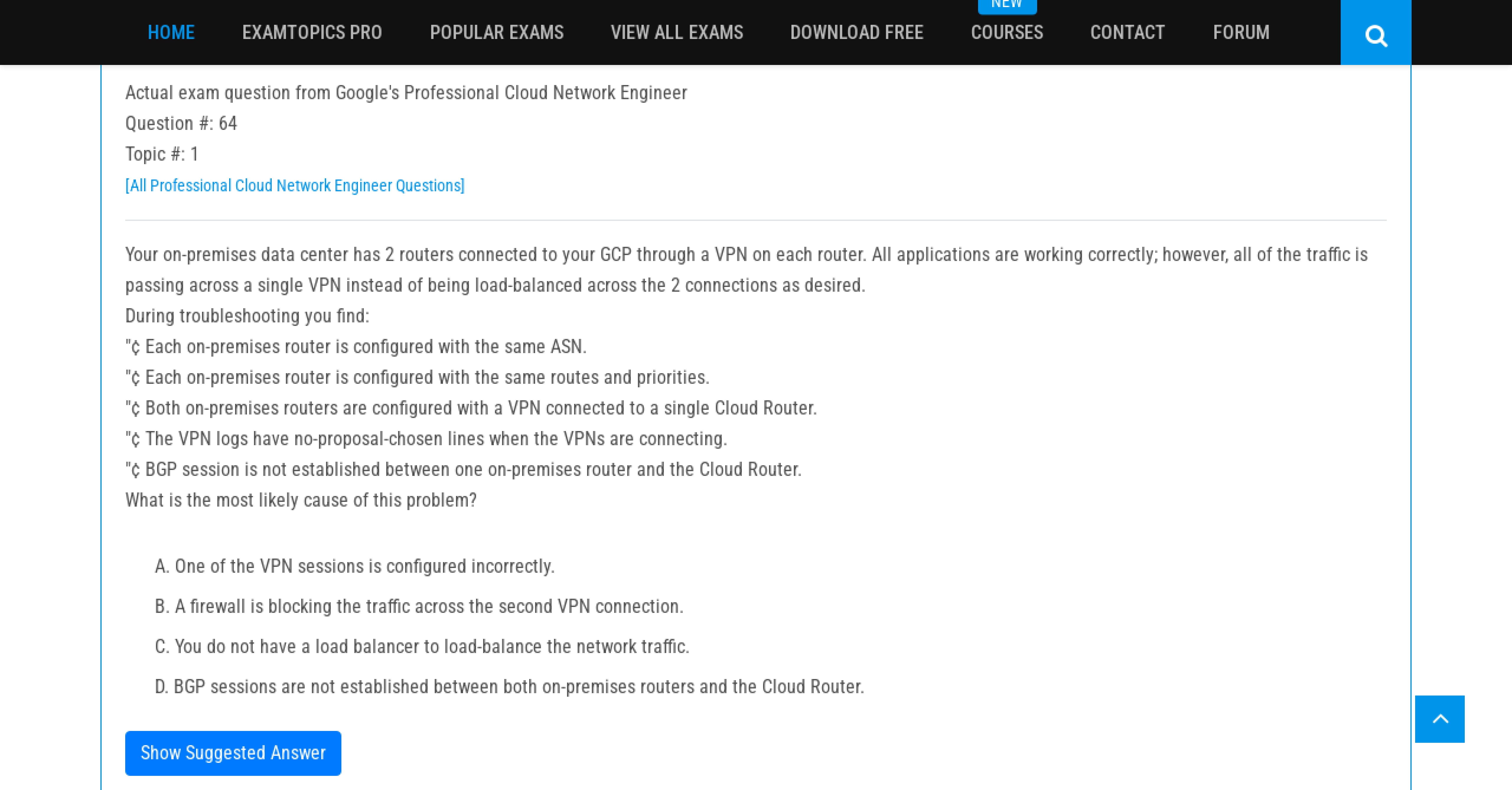
A. Create two firewall rules: one to block all traffic with priority 0, and another to allow port 22 with priority 1000.

B. Create two firewall rules: one to block all traffic with priority 65536, and another to allow port 3389 with priority 1000.

C. Create a single firewall rule to allow port 22 with priority 1000.

D. Create a single firewall rule to allow port 3389 with priority 1000.

Show Suggested Answer



Actual exam question from Google's Professional Cloud Network Engineer

Question #: 64

Topic #: 1

[All Professional Cloud Network Engineer Questions]

Your on-premises data center has 2 routers connected to your GCP through a VPN on each router. All applications are working correctly; however, all of the traffic is passing across a single VPN instead of being load-balanced across the 2 connections as desired.

During troubleshooting you find:

"¢ Each on-premises router is configured with the same ASN.

"¢ Each on-premises router is configured with the same routes and priorities.

"¢ Both on-premises routers are configured with a VPN connected to a single Cloud Router.

"¢ The VPN logs have no-proposal-chosen lines when the VPNs are connecting.

"¢ BGP session is not established between one on-premises router and the Cloud Router.

What is the most likely cause of this problem?

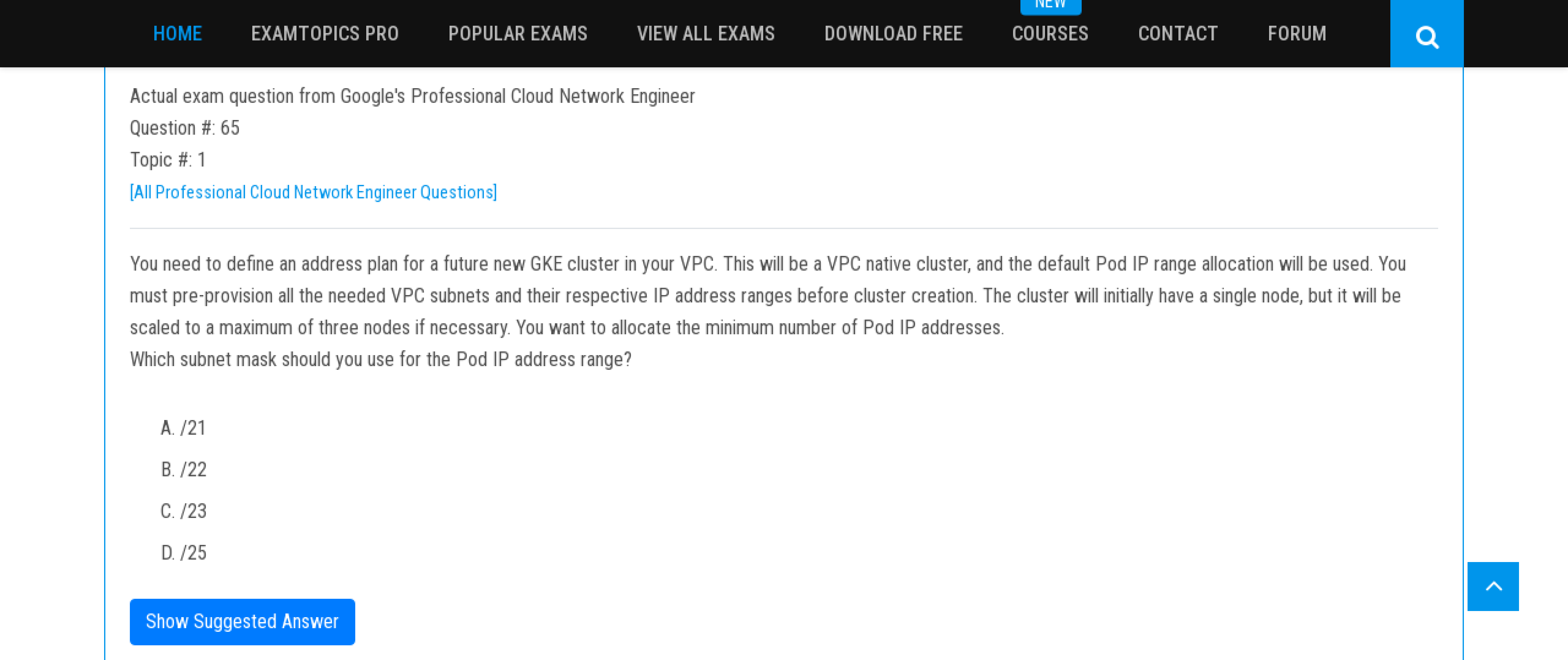
A. One of the VPN sessions is configured incorrectly.

B. A firewall is blocking the traffic across the second VPN connection.

C. You do not have a load balancer to load-balance the network traffic.

D. BGP sessions are not established between both on-premises routers and the Cloud Router.

Show Suggested Answer



Actual exam question from Google's Professional Cloud Network Engineer
Question #: 65
Topic #: 1
[All Professional Cloud Network Engineer Questions]

You need to define an address plan for a future new GKE cluster in your VPC. This will be a VPC native cluster, and the default Pod IP range allocation will be used. You must pre-provision all the needed VPC subnets and their respective IP address ranges before cluster creation. The cluster will initially have a single node, but it will be scaled to a maximum of three nodes if necessary. You want to allocate the minimum number of Pod IP addresses.
Which subnet mask should you use for the Pod IP address range?

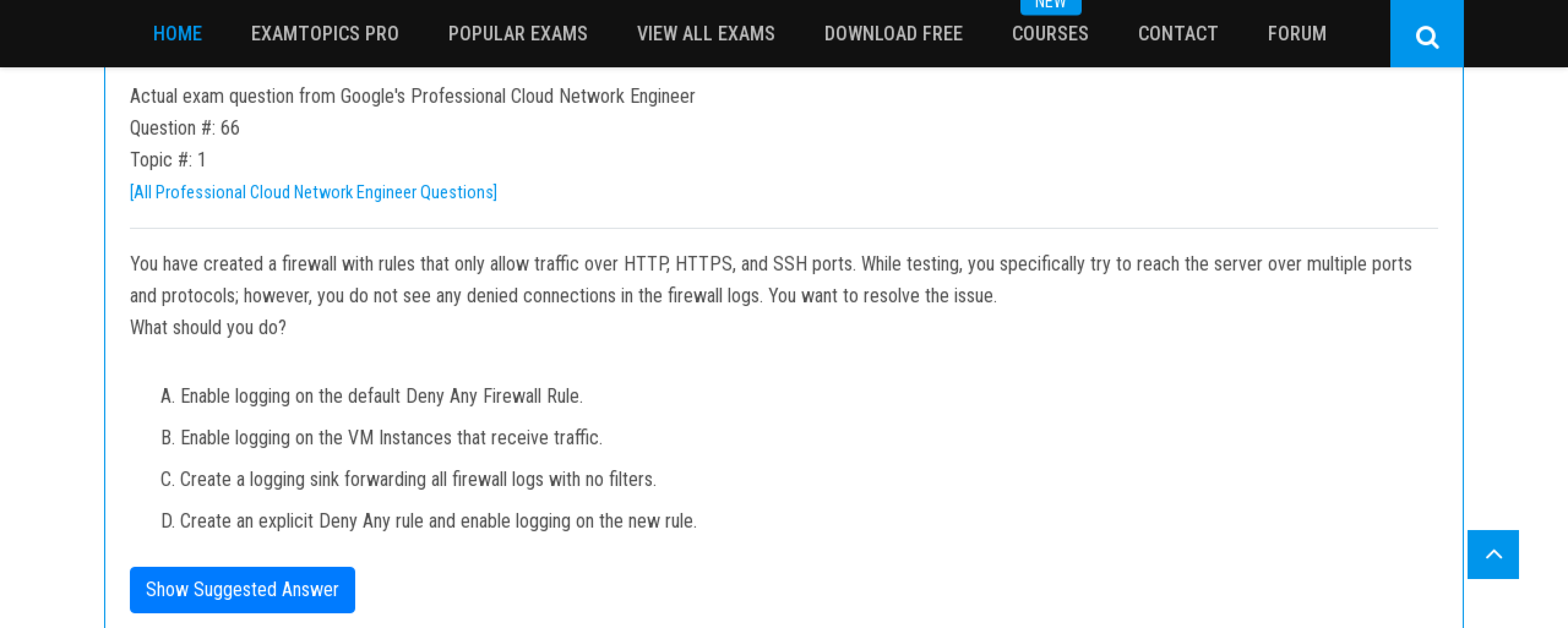
A. /21

B. /22

C. /23

D. /25

Show Suggested Answer



Actual exam question from Google's Professional Cloud Network Engineer
Question #: 66
Topic #: 1

[All Professional Cloud Network Engineer Questions]

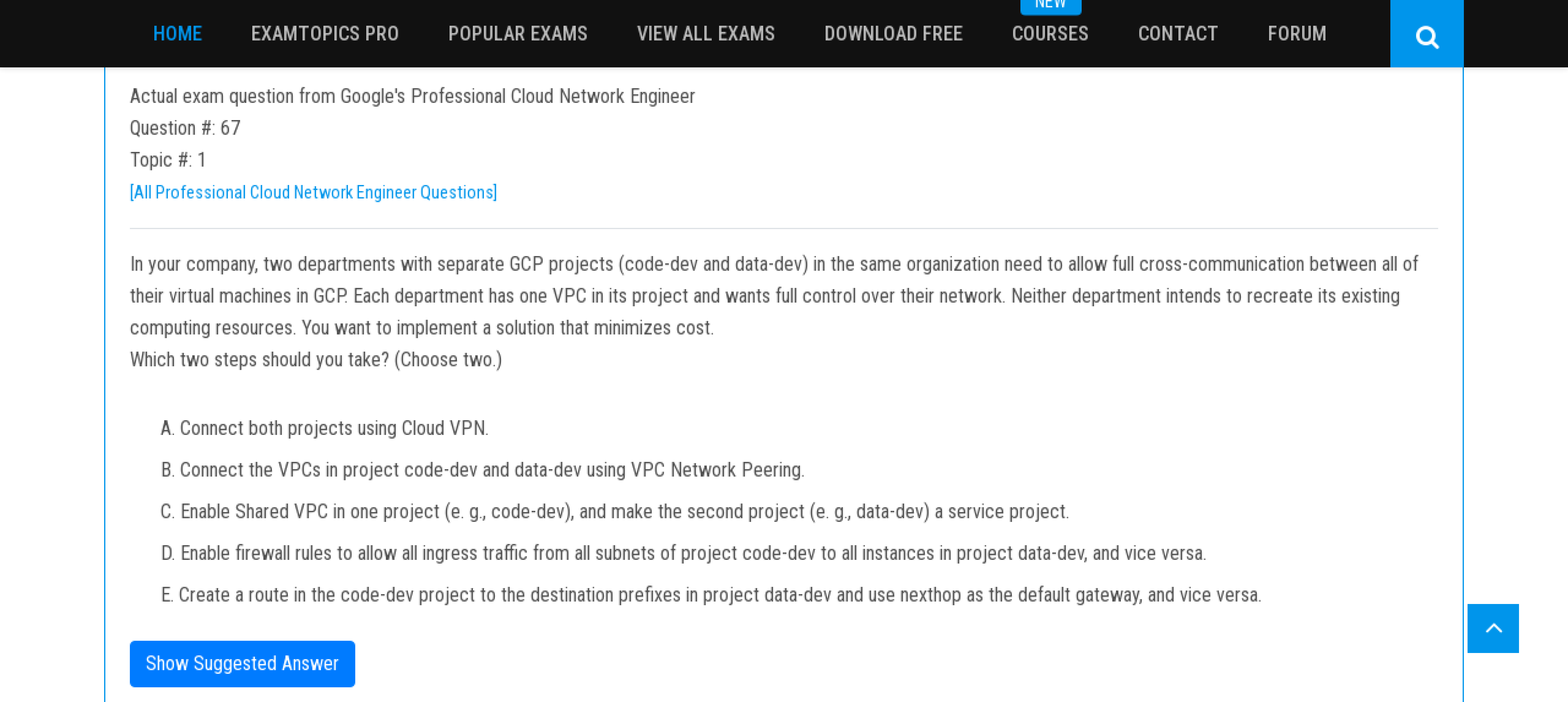
You have created a firewall with rules that only allow traffic over HTTP, HTTPS, and SSH ports. While testing, you specifically try to reach the server over multiple ports and protocols; however, you do not see any denied connections in the firewall logs. You want to resolve the issue.
What should you do?

A. Enable logging on the default Deny Any Firewall Rule.

B. Enable logging on the VM Instances that receive traffic.

C. Create a logging sink forwarding all firewall logs with no filters.

D. Create an explicit Deny Any rule and enable logging on the new rule.



Actual exam question from Google's Professional Cloud Network Engineer

Question #: 67

Topic #: 1

[All Professional Cloud Network Engineer Questions]

In your company, two departments with separate GCP projects (code-dev and data-dev) in the same organization need to allow full cross-communication between all of their virtual machines in GCP. Each department has one VPC in its project and wants full control over their network. Neither department intends to recreate its existing computing resources. You want to implement a solution that minimizes cost.

Which two steps should you take? (Choose two.)

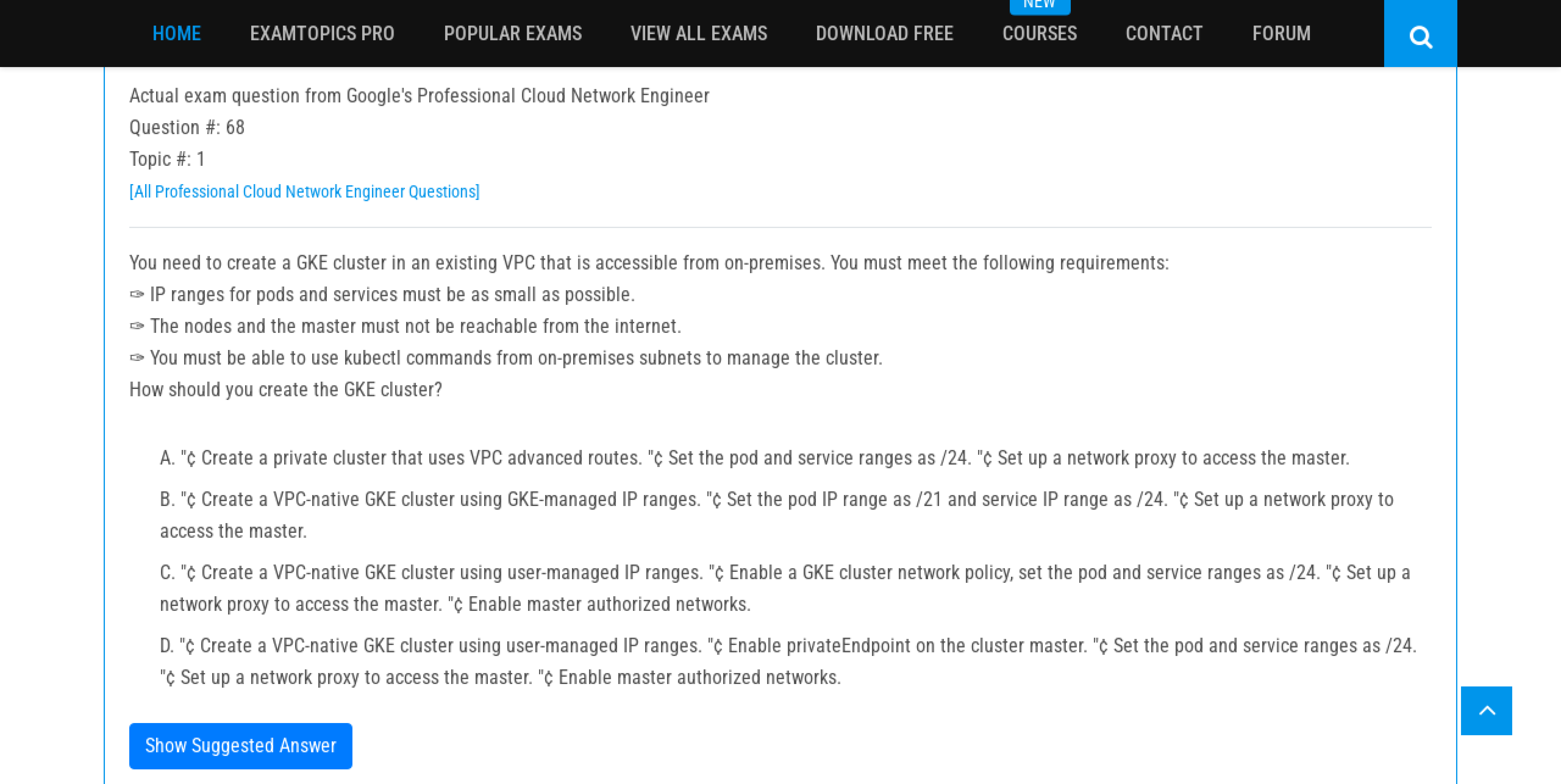
A. Connect both projects using Cloud VPN.

B. Connect the VPCs in project code-dev and data-dev using VPC Network Peering.

C. Enable Shared VPC in one project (e. g., code-dev), and make the second project (e. g., data-dev) a service project.

D. Enable firewall rules to allow all ingress traffic from all subnets of project code-dev to all instances in project data-dev, and vice versa.

E. Create a route in the code-dev project to the destination prefixes in project data-dev and use nexthop as the default gateway, and vice versa.



Actual exam question from Google's Professional Cloud Network Engineer

Question #: 68

Topic #: 1

[All Professional Cloud Network Engineer Questions]

You need to create a GKE cluster in an existing VPC that is accessible from on-premises. You must meet the following requirements:

✑ IP ranges for pods and services must be as small as possible.

✑ The nodes and the master must not be reachable from the internet.

✑ You must be able to use kubectl commands from on-premises subnets to manage the cluster.

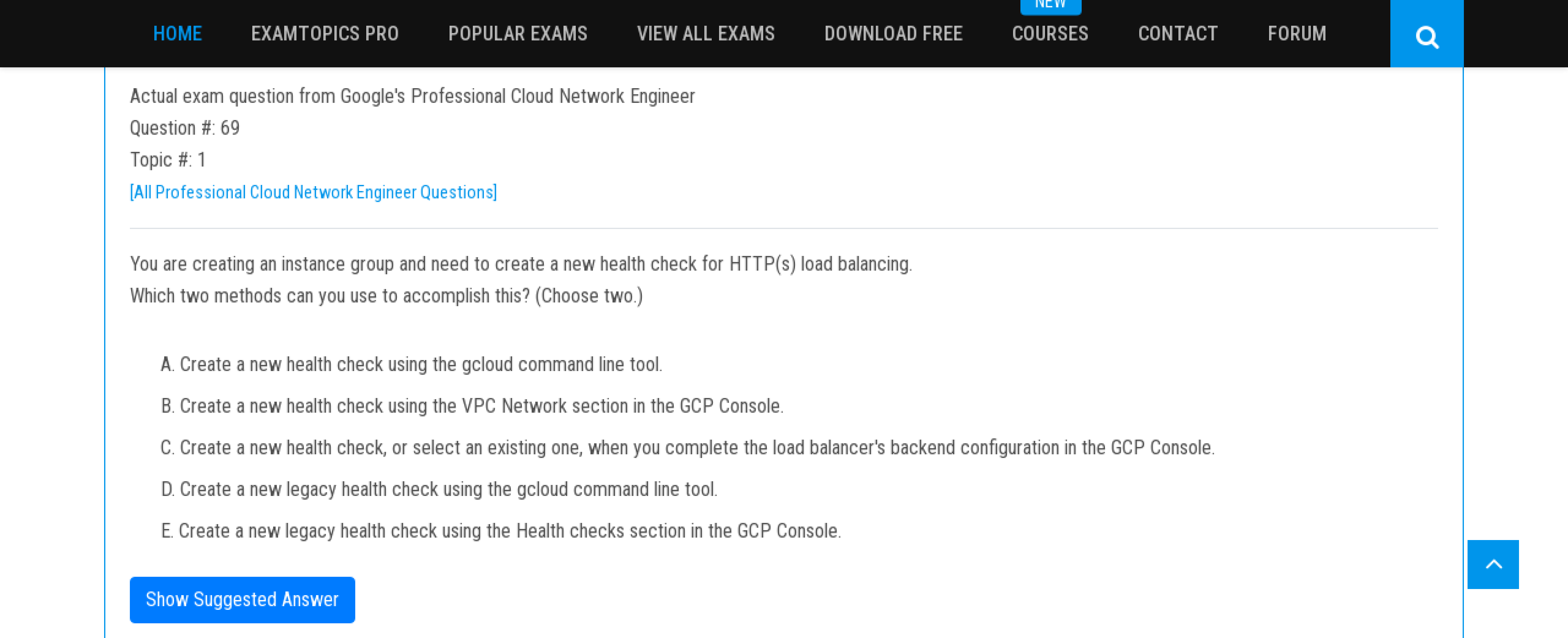
How should you create the GKE cluster?

A. "¢ Create a private cluster that uses VPC advanced routes. "¢ Set the pod and service ranges as /24. "¢ Set up a network proxy to access the master.

B. "¢ Create a VPC-native GKE cluster using GKE-managed IP ranges. "¢ Set the pod IP range as /21 and service IP range as /24. "¢ Set up a network proxy to access the master.

C. "¢ Create a VPC-native GKE cluster using user-managed IP ranges. "¢ Enable a GKE cluster network policy, set the pod and service ranges as /24. "¢ Set up a network proxy to access the master. "¢ Enable master authorized networks.

D. "¢ Create a VPC-native GKE cluster using user-managed IP ranges. "¢ Enable privateEndpoint on the cluster master. "¢ Set the pod and service ranges as /24. "¢ Set up a network proxy to access the master. "¢ Enable master authorized networks.



Actual exam question from Google's Professional Cloud Network Engineer

Question #: 69

Topic #: 1

[All Professional Cloud Network Engineer Questions]

You are creating an instance group and need to create a new health check for HTTP(s) load balancing.

Which two methods can you use to accomplish this? (Choose two.)

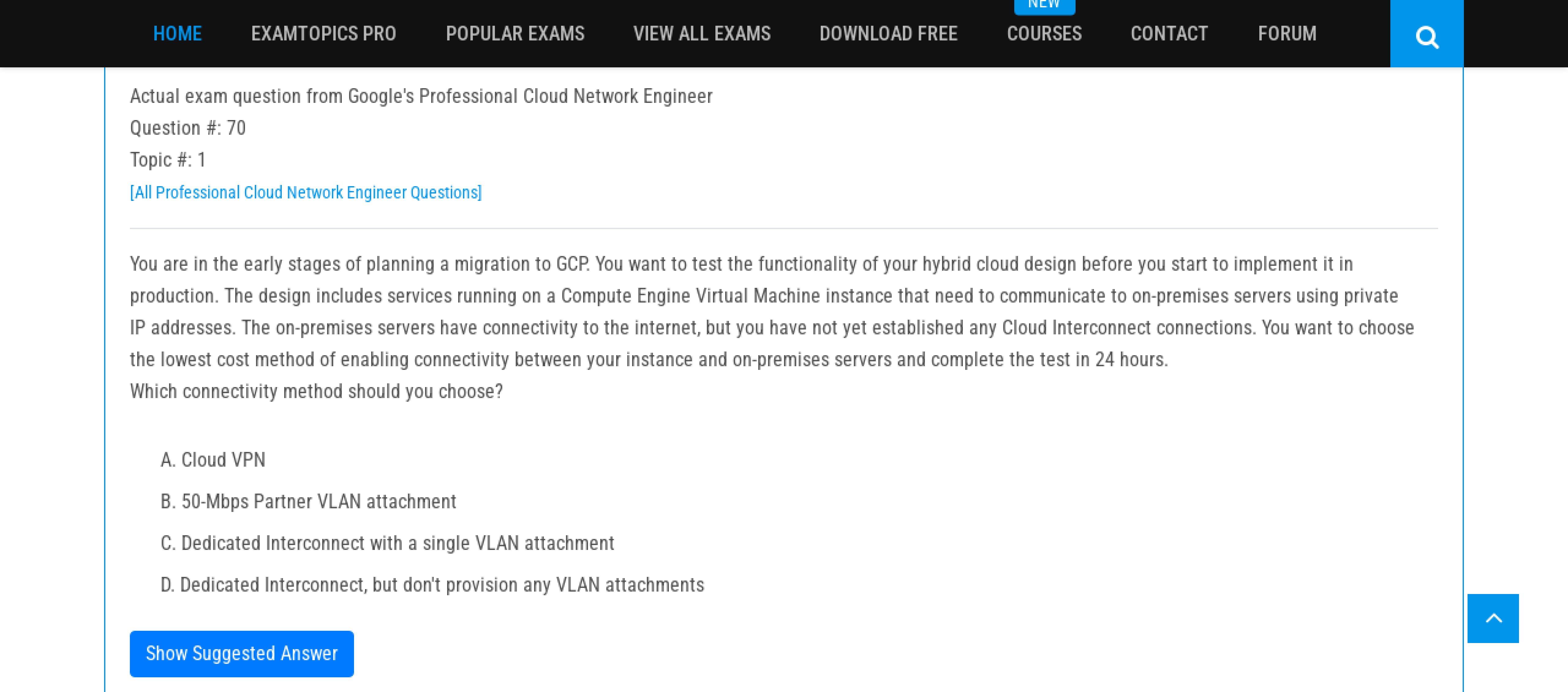
A. Create a new health check using the gcloud command line tool.

B. Create a new health check using the VPC Network section in the GCP Console.

C. Create a new health check, or select an existing one, when you complete the load balancer's backend configuration in the GCP Console.

D. Create a new legacy health check using the gcloud command line tool.

E. Create a new legacy health check using the Health checks section in the GCP Console.



Actual exam question from Google's Professional Cloud Network Engineer

Question #: 70

Topic #: 1

[All Professional Cloud Network Engineer Questions]

You are in the early stages of planning a migration to GCP. You want to test the functionality of your hybrid cloud design before you start to implement it in production. The design includes services running on a Compute Engine Virtual Machine instance that need to communicate to on-premises servers using private IP addresses. The on-premises servers have connectivity to the internet, but you have not yet established any Cloud Interconnect connections. You want to choose the lowest cost method of enabling connectivity between your instance and on-premises servers and complete the test in 24 hours.

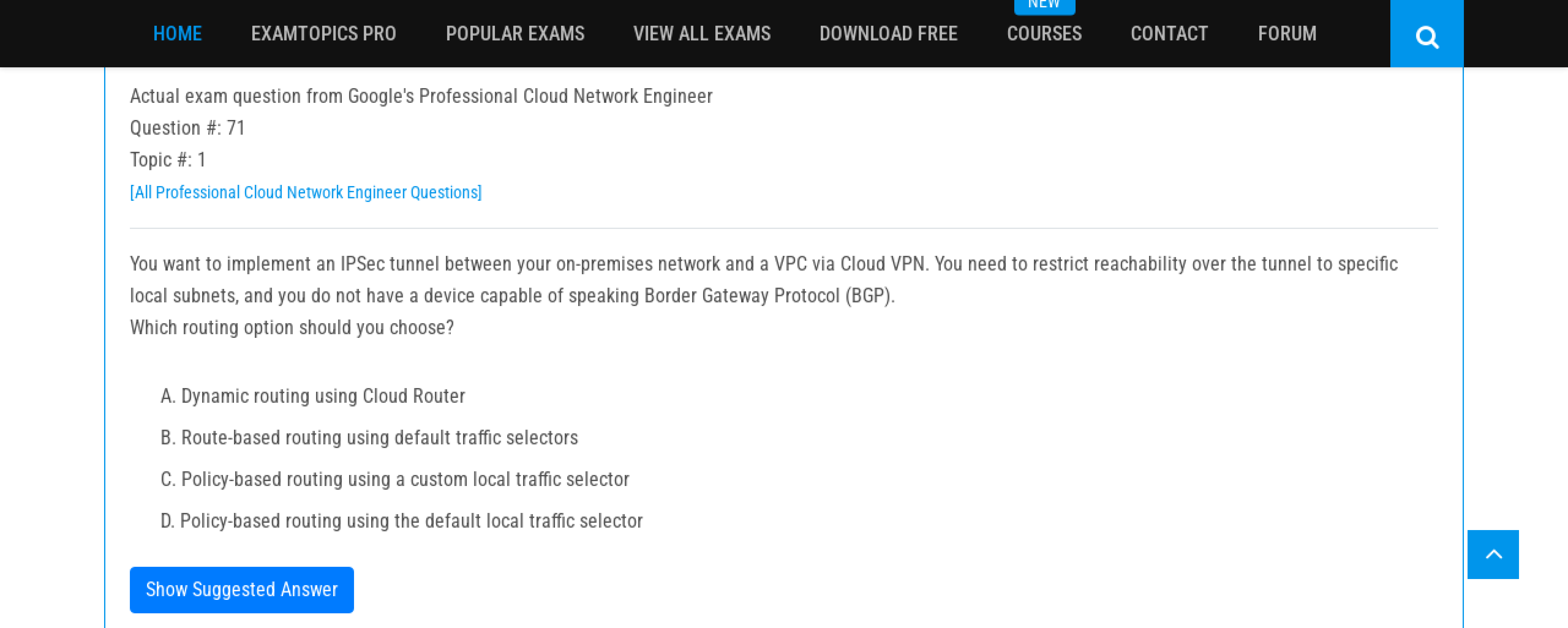
Which connectivity method should you choose?

A. Cloud VPN

B. 50-Mbps Partner VLAN attachment

C. Dedicated Interconnect with a single VLAN attachment

D. Dedicated Interconnect, but don't provision any VLAN attachments



Actual exam question from Google's Professional Cloud Network Engineer

Question #: 71

Topic #: 1

[All Professional Cloud Network Engineer Questions]

You want to implement an IPSec tunnel between your on-premises network and a VPC via Cloud VPN. You need to restrict reachability over the tunnel to specific local subnets, and you do not have a device capable of speaking Border Gateway Protocol (BGP).

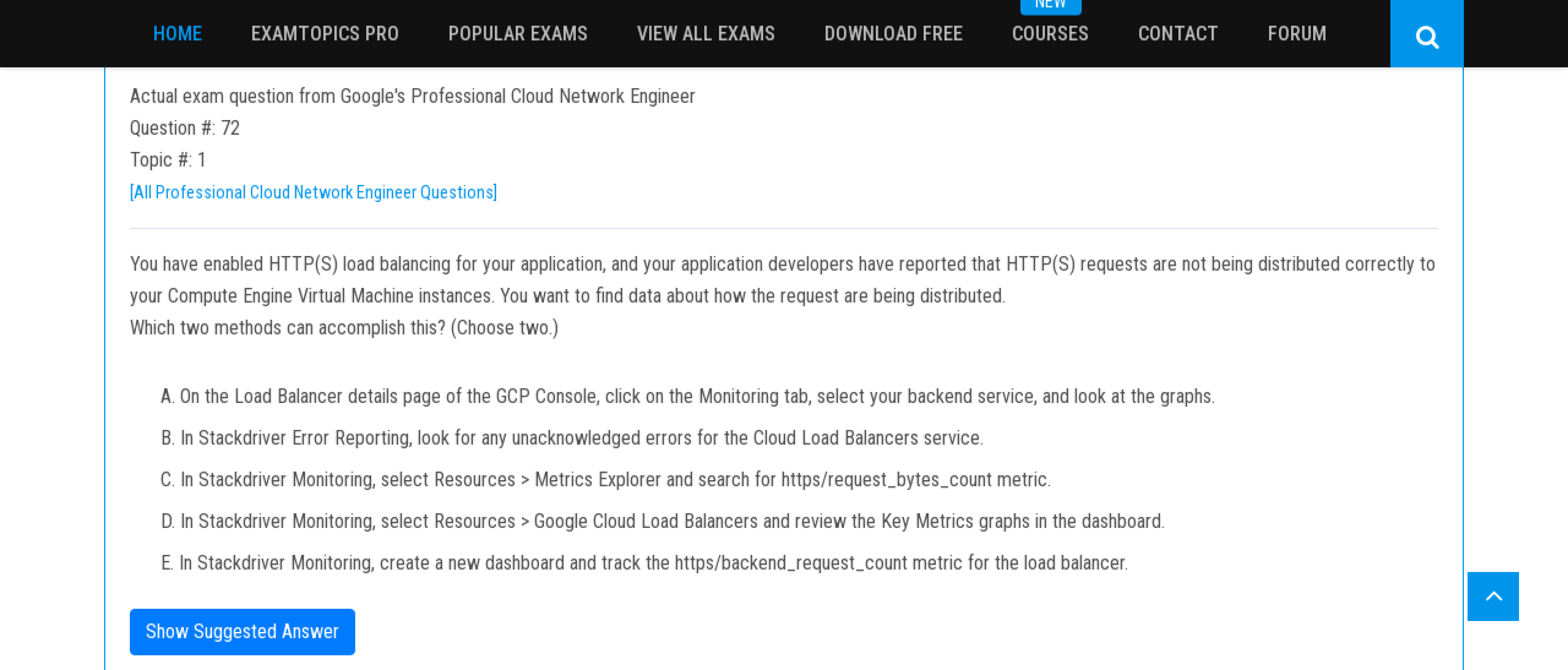
Which routing option should you choose?

A. Dynamic routing using Cloud Router

B. Route-based routing using default traffic selectors

C. Policy-based routing using a custom local traffic selector

D. Policy-based routing using the default local traffic selector



Actual exam question from Google's Professional Cloud Network Engineer
Question #: 72
Topic #: 1

[All Professional Cloud Network Engineer Questions]

You have enabled HTTP(S) load balancing for your application, and your application developers have reported that HTTP(S) requests are not being distributed correctly to your Compute Engine Virtual Machine instances. You want to find data about how the request are being distributed.
Which two methods can accomplish this? (Choose two.)

A. On the Load Balancer details page of the GCP Console, click on the Monitoring tab, select your backend service, and look at the graphs.

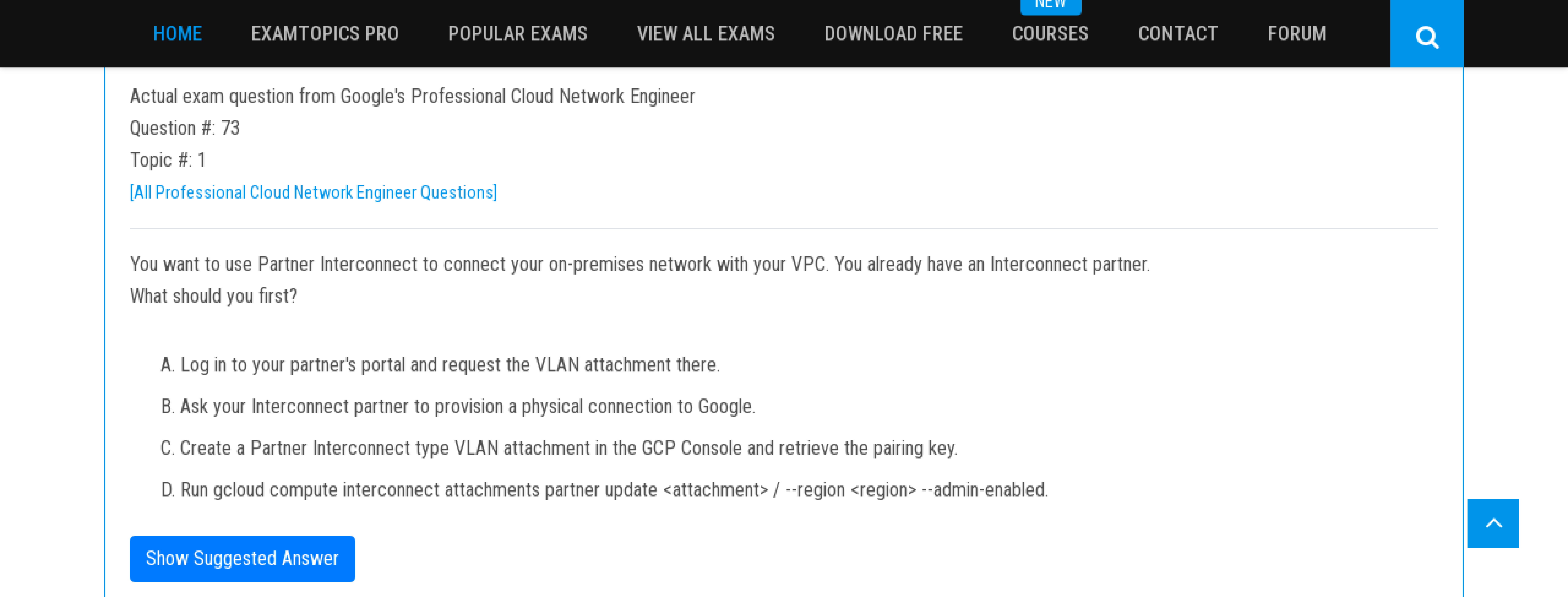
B. In Stackdriver Error Reporting, look for any unacknowledged errors for the Cloud Load Balancers service.

C. In Stackdriver Monitoring, select Resources > Metrics Explorer and search for https/request_bytes_count metric.

D. In Stackdriver Monitoring, select Resources > Google Cloud Load Balancers and review the Key Metrics graphs in the dashboard.

E. In Stackdriver Monitoring, create a new dashboard and track the https/backend_request_count metric for the load balancer.

Show Suggested Answer



Actual exam question from Google's Professional Cloud Network Engineer

Question #: 73

Topic #: 1

[All Professional Cloud Network Engineer Questions]

You want to use Partner Interconnect to connect your on-premises network with your VPC. You already have an Interconnect partner.

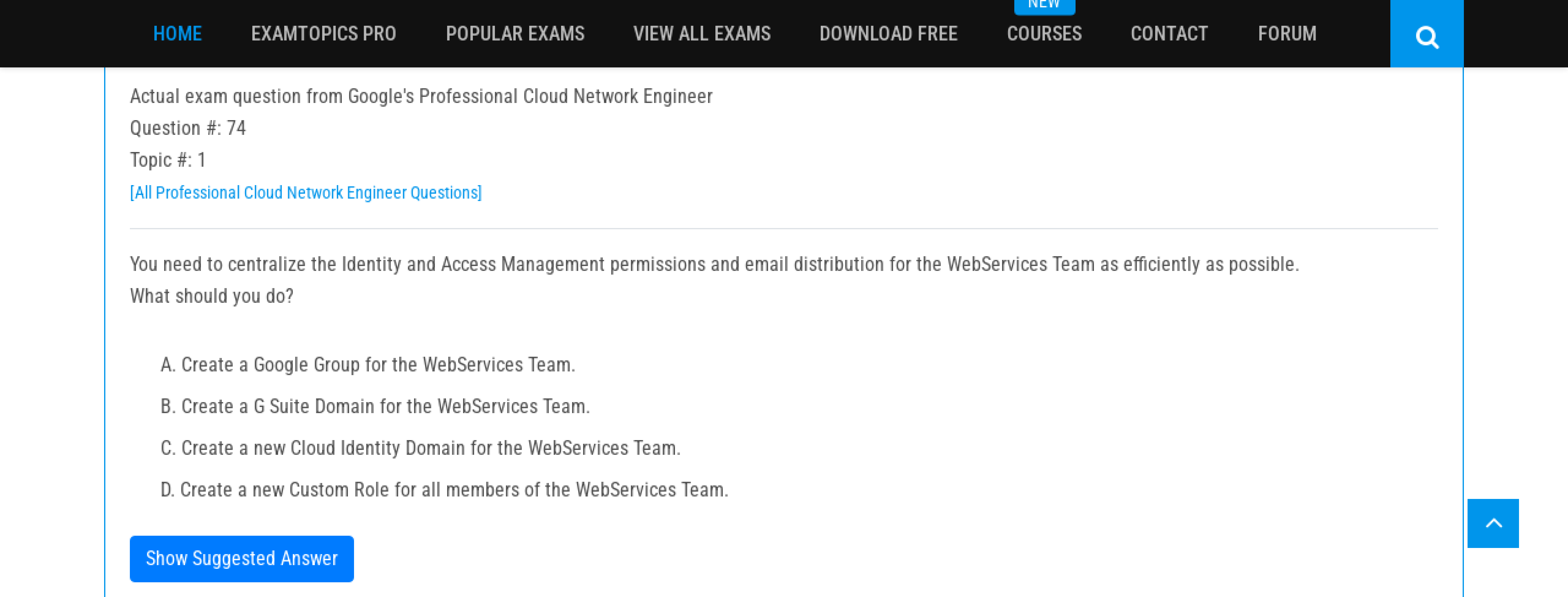
What should you first?

A. Log in to your partner's portal and request the VLAN attachment there.

B. Ask your Interconnect partner to provision a physical connection to Google.

C. Create a Partner Interconnect type VLAN attachment in the GCP Console and retrieve the pairing key.

D. Run gcloud compute interconnect attachments partner update <attachment> / --region <region> --admin-enabled.



Actual exam question from Google's Professional Cloud Network Engineer

Question #: 74

Topic #: 1

[All Professional Cloud Network Engineer Questions]

You need to centralize the Identity and Access Management permissions and email distribution for the WebServices Team as efficiently as possible.

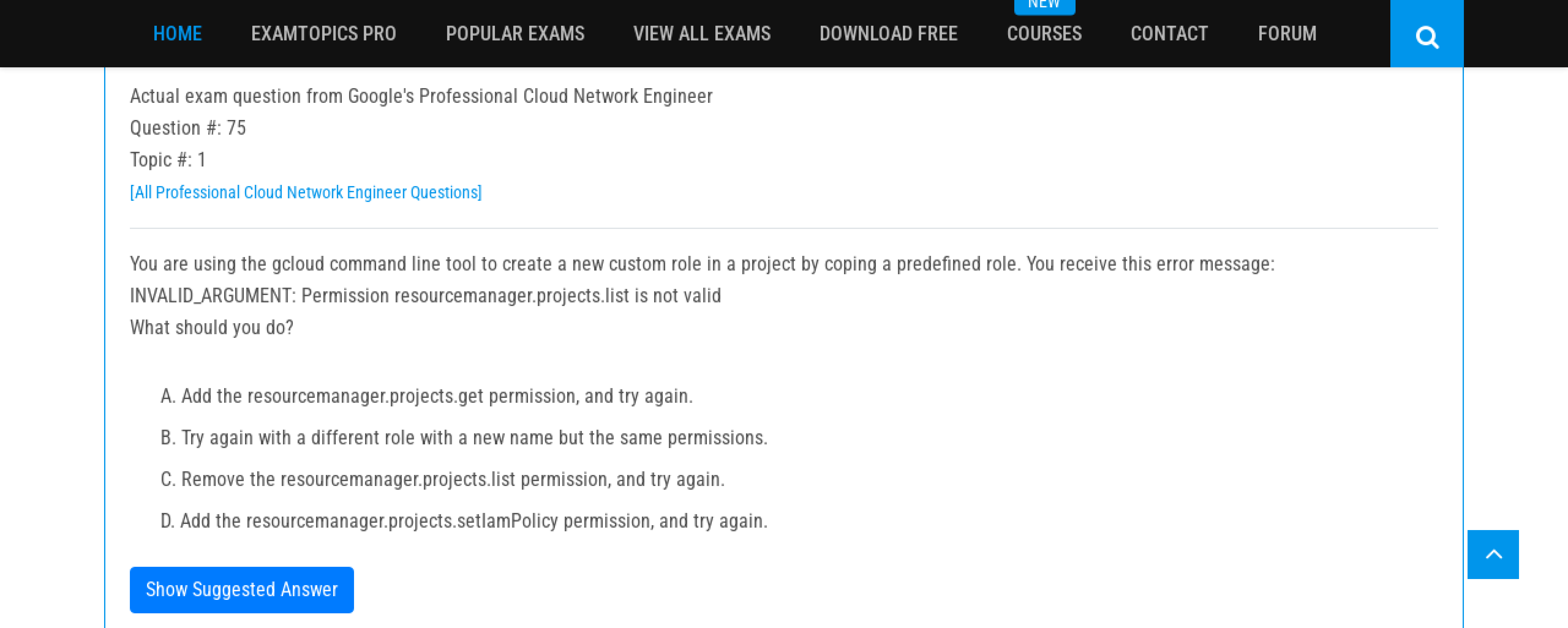
What should you do?

A. Create a Google Group for the WebServices Team.

B. Create a G Suite Domain for the WebServices Team.

C. Create a new Cloud Identity Domain for the WebServices Team.

D. Create a new Custom Role for all members of the WebServices Team.



Actual exam question from Google's Professional Cloud Network Engineer

Question #: 75

Topic #: 1

[All Professional Cloud Network Engineer Questions]

You are using the gcloud command line tool to create a new custom role in a project by coping a predefined role. You receive this error message:

INVALID_ARGUMENT: Permission resourcemanager.projects.list is not valid

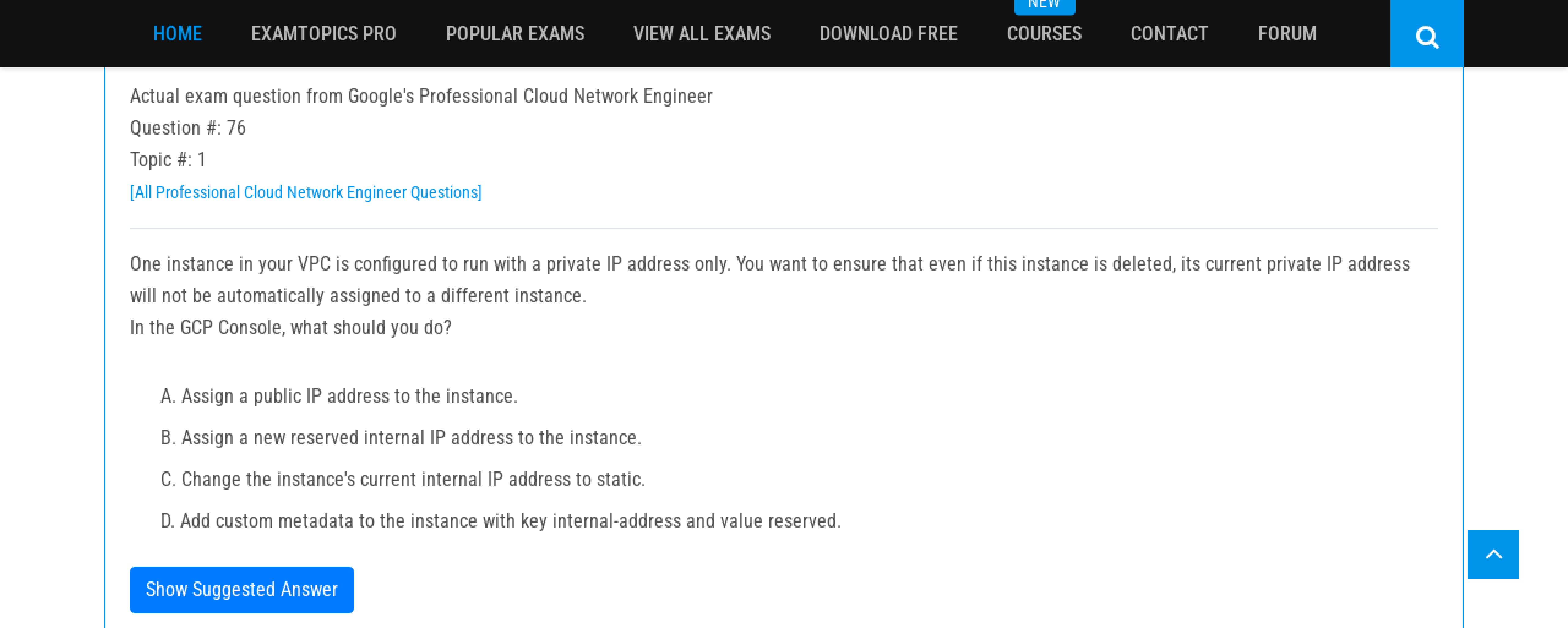
What should you do?

A. Add the resourcemanager.projects.get permission, and try again.

B. Try again with a different role with a new name but the same permissions.

C. Remove the resourcemanager.projects.list permission, and try again.

D. Add the resourcemanager.projects.setIamPolicy permission, and try again.



Actual exam question from Google's Professional Cloud Network Engineer
Question #: 76
Topic #: 1

[All Professional Cloud Network Engineer Questions]

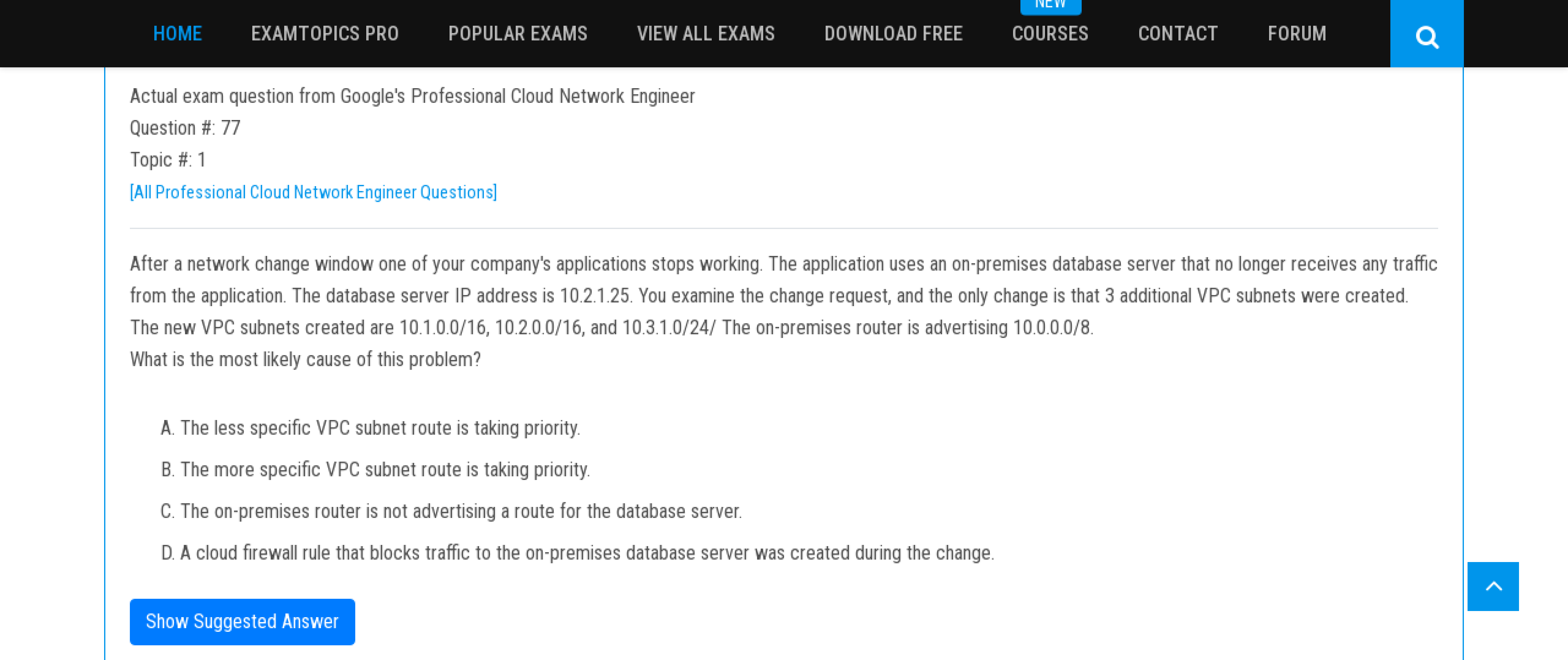
One instance in your VPC is configured to run with a private IP address only. You want to ensure that even if this instance is deleted, its current private IP address will not be automatically assigned to a different instance.
In the GCP Console, what should you do?

A. Assign a public IP address to the instance.

B. Assign a new reserved internal IP address to the instance.

C. Change the instance's current internal IP address to static.

D. Add custom metadata to the instance with key internal-address and value reserved.



Actual exam question from Google's Professional Cloud Network Engineer

Question #: 77

Topic #: 1

[All Professional Cloud Network Engineer Questions]

After a network change window one of your company's applications stops working. The application uses an on-premises database server that no longer receives any traffic from the application. The database server IP address is 10.2.1.25. You examine the change request, and the only change is that 3 additional VPC subnets were created. The new VPC subnets created are 10.1.0.0/16, 10.2.0.0/16, and 10.3.1.0/24/ The on-premises router is advertising 10.0.0.0/8.

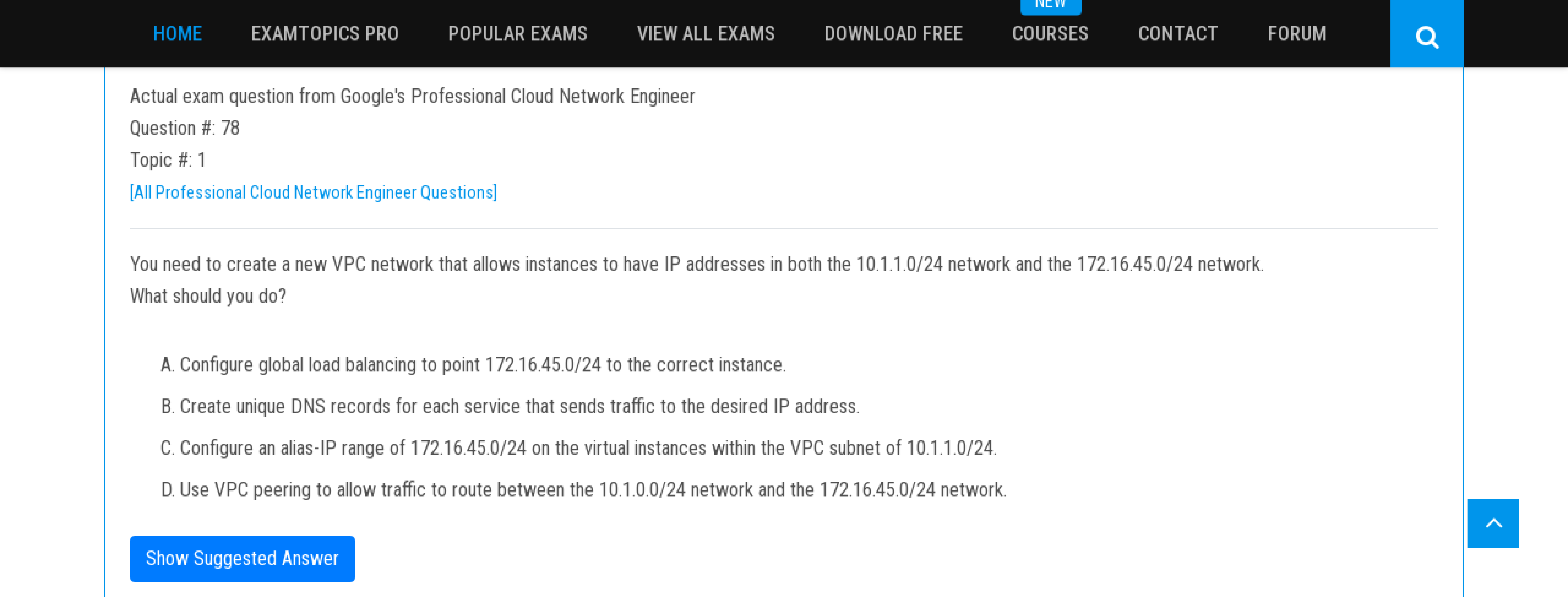
What is the most likely cause of this problem?

A. The less specific VPC subnet route is taking priority.

B. The more specific VPC subnet route is taking priority.

C. The on-premises router is not advertising a route for the database server.

D. A cloud firewall rule that blocks traffic to the on-premises database server was created during the change.



Actual exam question from Google's Professional Cloud Network Engineer

Question #: 78

Topic #: 1

[All Professional Cloud Network Engineer Questions]

You need to create a new VPC network that allows instances to have IP addresses in both the 10.1.1.0/24 network and the 172.16.45.0/24 network.

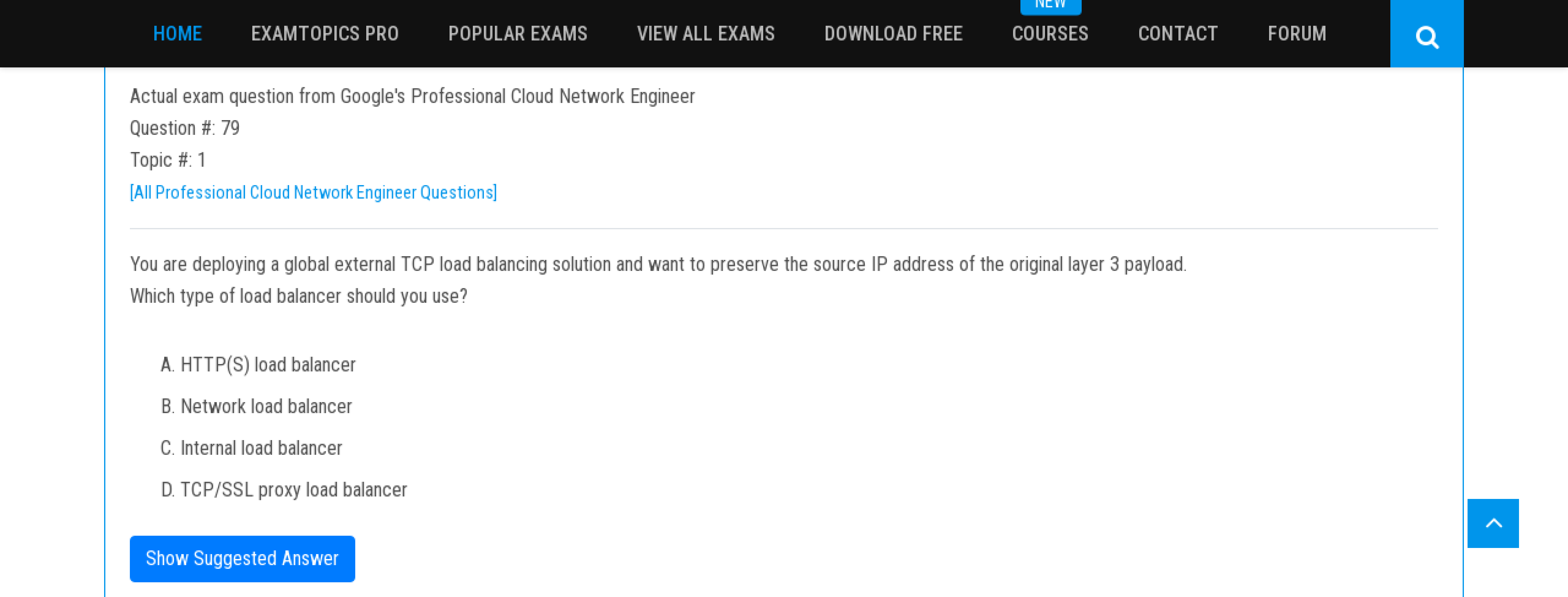
What should you do?

A. Configure global load balancing to point 172.16.45.0/24 to the correct instance.

B. Create unique DNS records for each service that sends traffic to the desired IP address.

C. Configure an alias-IP range of 172.16.45.0/24 on the virtual instances within the VPC subnet of 10.1.1.0/24.

D. Use VPC peering to allow traffic to route between the 10.1.0.0/24 network and the 172.16.45.0/24 network.



Actual exam question from Google's Professional Cloud Network Engineer

Question #: 79

Topic #: 1

[All Professional Cloud Network Engineer Questions]

You are deploying a global external TCP load balancing solution and want to preserve the source IP address of the original layer 3 payload.

Which type of load balancer should you use?

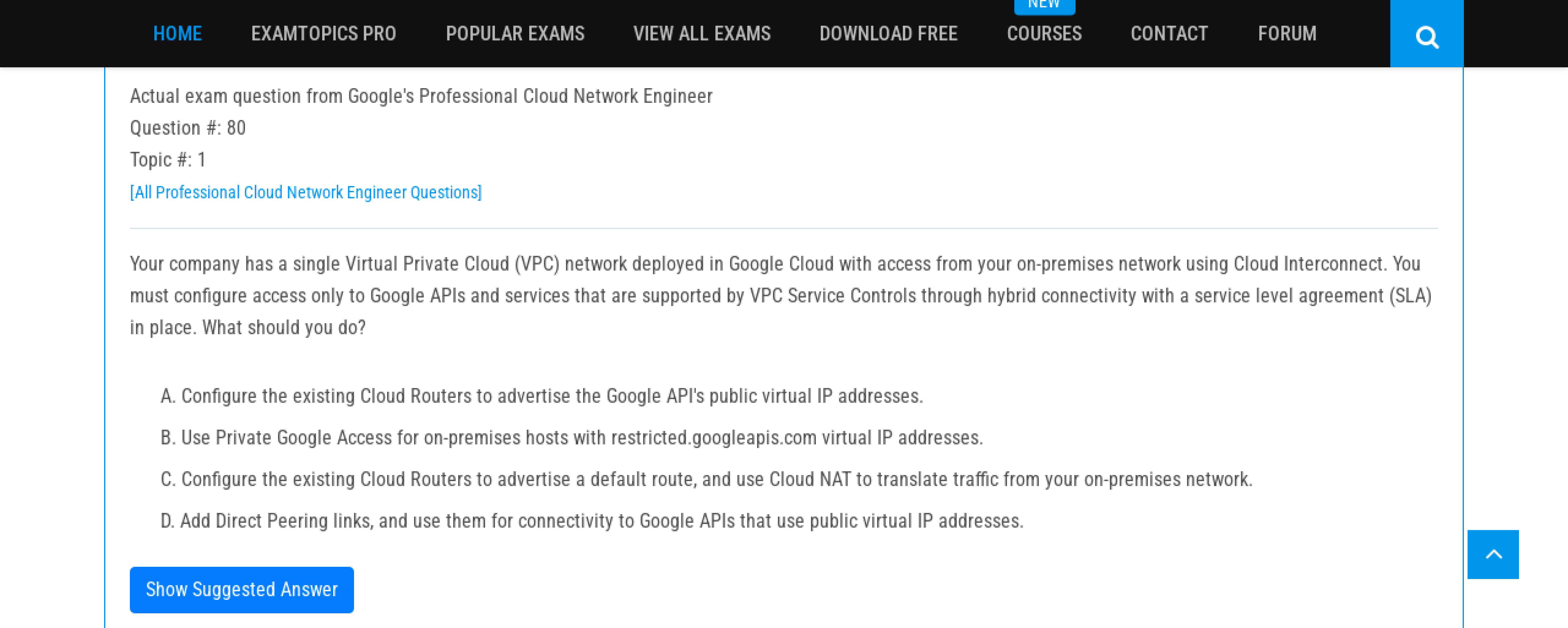
A. HTTP(S) load balancer

B. Network load balancer

C. Internal load balancer

D. TCP/SSL proxy load balancer

Show Suggested Answer



Actual exam question from Google's Professional Cloud Network Engineer

Question #: 80

Topic #: 1

[All Professional Cloud Network Engineer Questions]

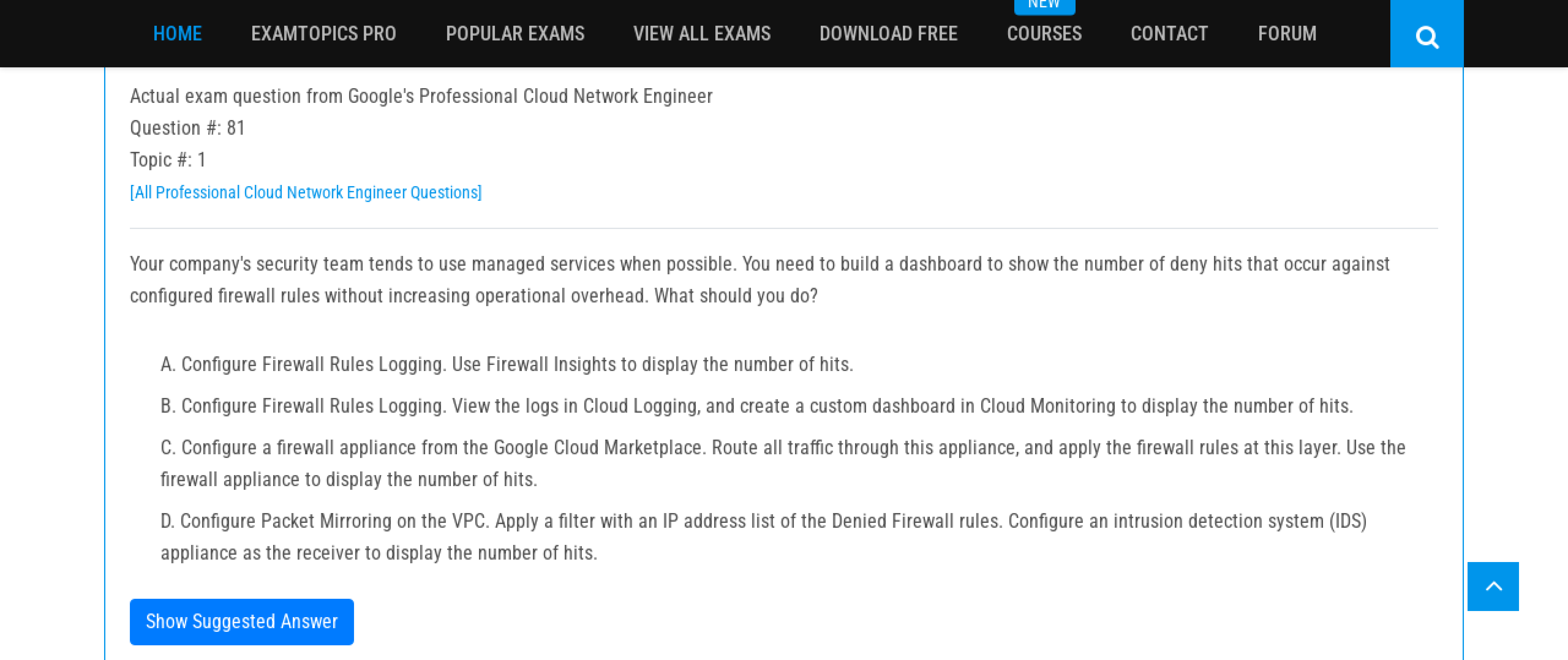
Your company has a single Virtual Private Cloud (VPC) network deployed in Google Cloud with access from your on-premises network using Cloud Interconnect. You must configure access only to Google APIs and services that are supported by VPC Service Controls through hybrid connectivity with a service level agreement (SLA) in place. What should you do?

A. Configure the existing Cloud Routers to advertise the Google API's public virtual IP addresses.

B. Use Private Google Access for on-premises hosts with restricted.googleapis.com virtual IP addresses.

C. Configure the existing Cloud Routers to advertise a default route, and use Cloud NAT to translate traffic from your on-premises network.

D. Add Direct Peering links, and use them for connectivity to Google APIs that use public virtual IP addresses.



Actual exam question from Google's Professional Cloud Network Engineer

Question #: 81

Topic #: 1

[All Professional Cloud Network Engineer Questions]

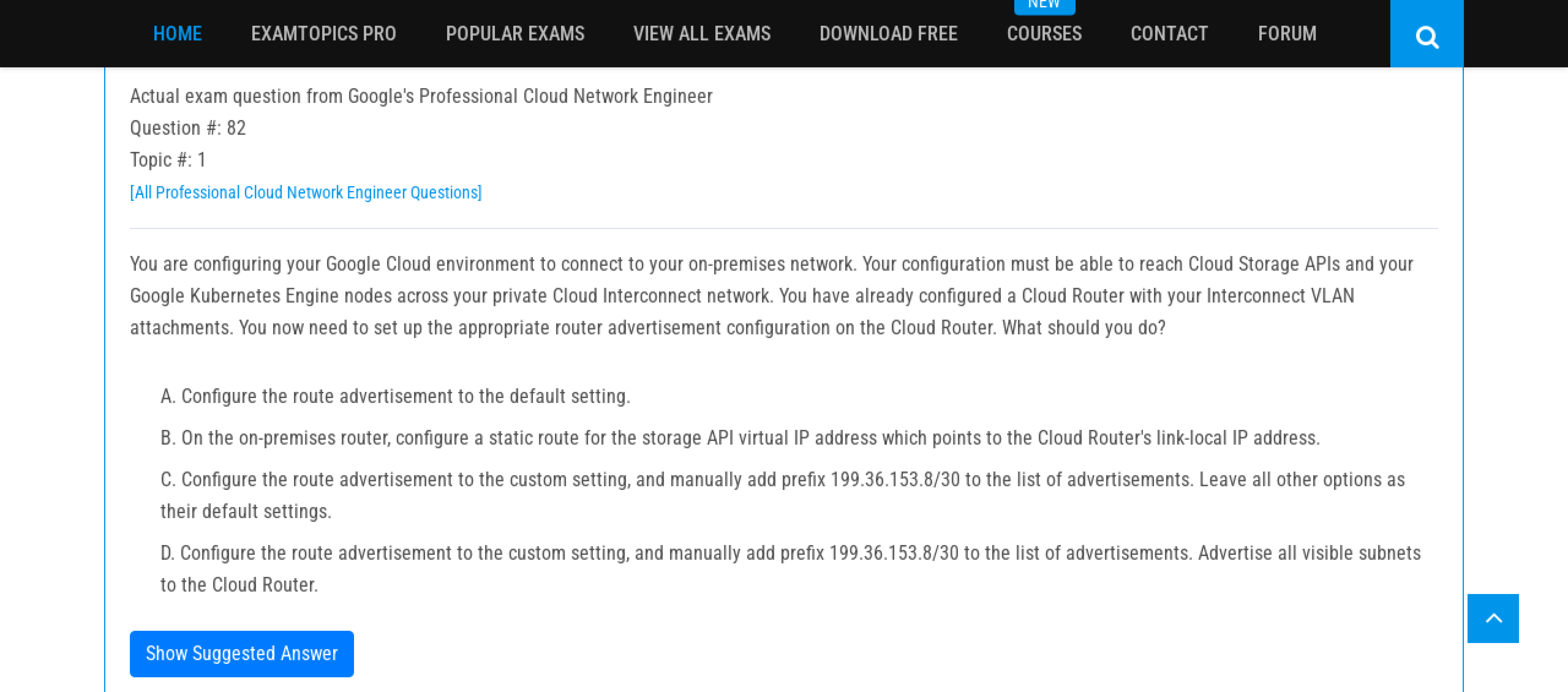
Your company's security team tends to use managed services when possible. You need to build a dashboard to show the number of deny hits that occur against configured firewall rules without increasing operational overhead. What should you do?

A. Configure Firewall Rules Logging. Use Firewall Insights to display the number of hits.

B. Configure Firewall Rules Logging. View the logs in Cloud Logging, and create a custom dashboard in Cloud Monitoring to display the number of hits.

C. Configure a firewall appliance from the Google Cloud Marketplace. Route all traffic through this appliance, and apply the firewall rules at this layer. Use the firewall appliance to display the number of hits.

D. Configure Packet Mirroring on the VPC. Apply a filter with an IP address list of the Denied Firewall rules. Configure an intrusion detection system (IDS) appliance as the receiver to display the number of hits.



Actual exam question from Google's Professional Cloud Network Engineer

Question #: 82

Topic #: 1

[All Professional Cloud Network Engineer Questions]

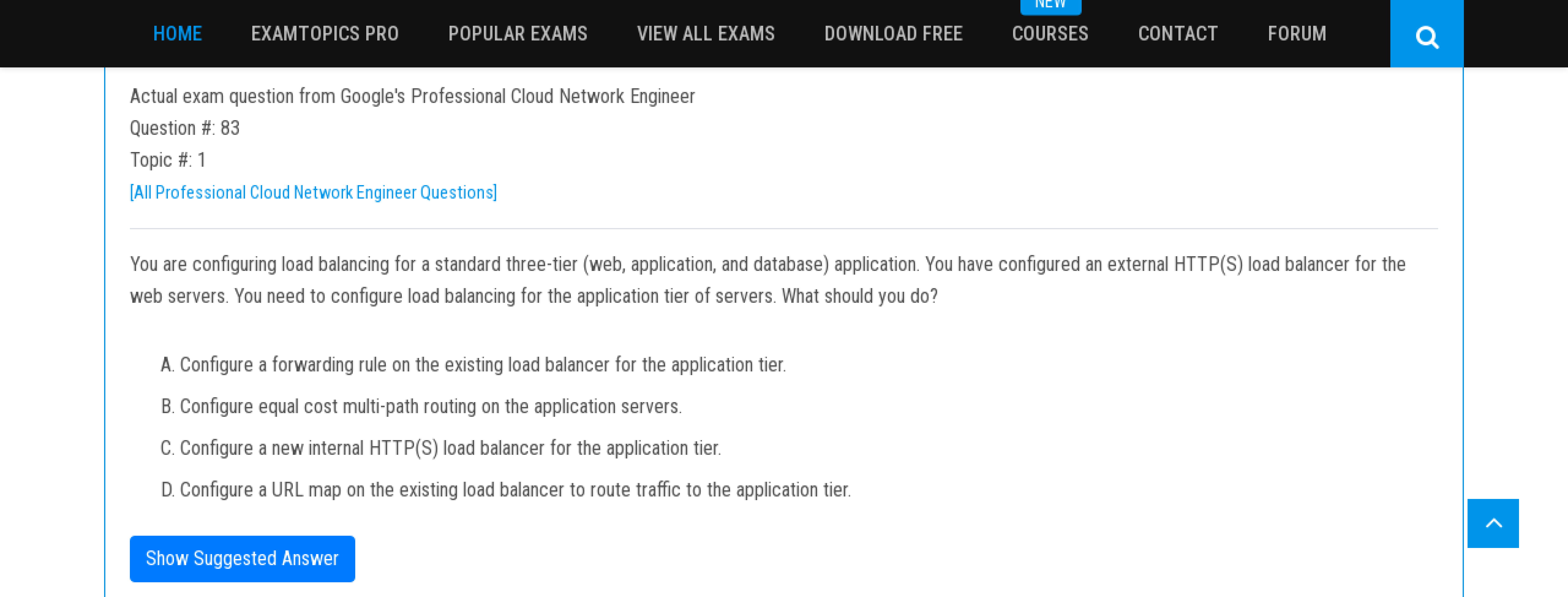
You are configuring your Google Cloud environment to connect to your on-premises network. Your configuration must be able to reach Cloud Storage APIs and your Google Kubernetes Engine nodes across your private Cloud Interconnect network. You have already configured a Cloud Router with your Interconnect VLAN attachments. You now need to set up the appropriate router advertisement configuration on the Cloud Router. What should you do?

A. Configure the route advertisement to the default setting.

B. On the on-premises router, configure a static route for the storage API virtual IP address which points to the Cloud Router's link-local IP address.

C. Configure the route advertisement to the custom setting, and manually add prefix 199.36.153.8/30 to the list of advertisements. Leave all other options as their default settings.

D. Configure the route advertisement to the custom setting, and manually add prefix 199.36.153.8/30 to the list of advertisements. Advertise all visible subnets to the Cloud Router.



Actual exam question from Google's Professional Cloud Network Engineer

Question #: 83

Topic #: 1

[All Professional Cloud Network Engineer Questions]

You are configuring load balancing for a standard three-tier (web, application, and database) application. You have configured an external HTTP(S) load balancer for the web servers. You need to configure load balancing for the application tier of servers. What should you do?

A. Configure a forwarding rule on the existing load balancer for the application tier.

B. Configure equal cost multi-path routing on the application servers.

C. Configure a new internal HTTP(S) load balancer for the application tier.

D. Configure a URL map on the existing load balancer to route traffic to the application tier.

Actual exam question from Google's Professional Cloud Network Engineer
Question #: 84
Topic #: 1

[All Professional Cloud Network Engineer Questions]

Your organization has a new security policy that requires you to monitor all egress traffic payloads from your virtual machines in region us-west2. You deployed an intrusion detection system (IDS) virtual appliance in the same region to meet the new policy. You now need to integrate the IDS into the environment to monitor all egress traffic payloads from us-west2. What should you do?

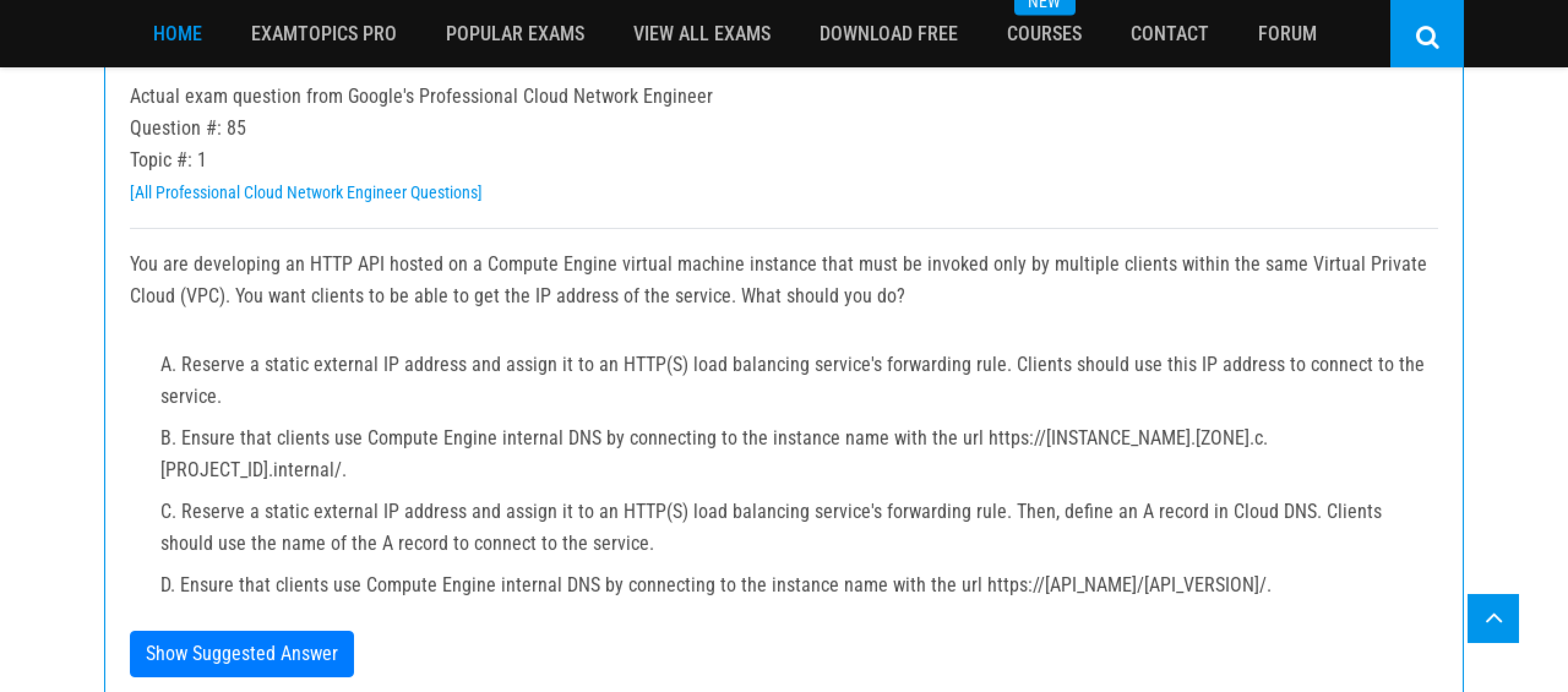
A. Enable firewall logging, and forward all filtered egress firewall logs to the IDS.

B. Enable VPC Flow Logs. Create a sink in Cloud Logging to send filtered egress VPC Flow Logs to the IDS.

C. Create an internal TCP/UDP load balancer for Packet Mirroring, and add a packet mirroring policy filter for egress traffic.

D. Create an internal HTTP(S) load balancer for Packet Mirroring, and add a packet mirroring policy filter for egress traffic.

Show Suggested Answer



Actual exam question from Google's Professional Cloud Network Engineer

Question #: 85

Topic #: 1

[All Professional Cloud Network Engineer Questions]

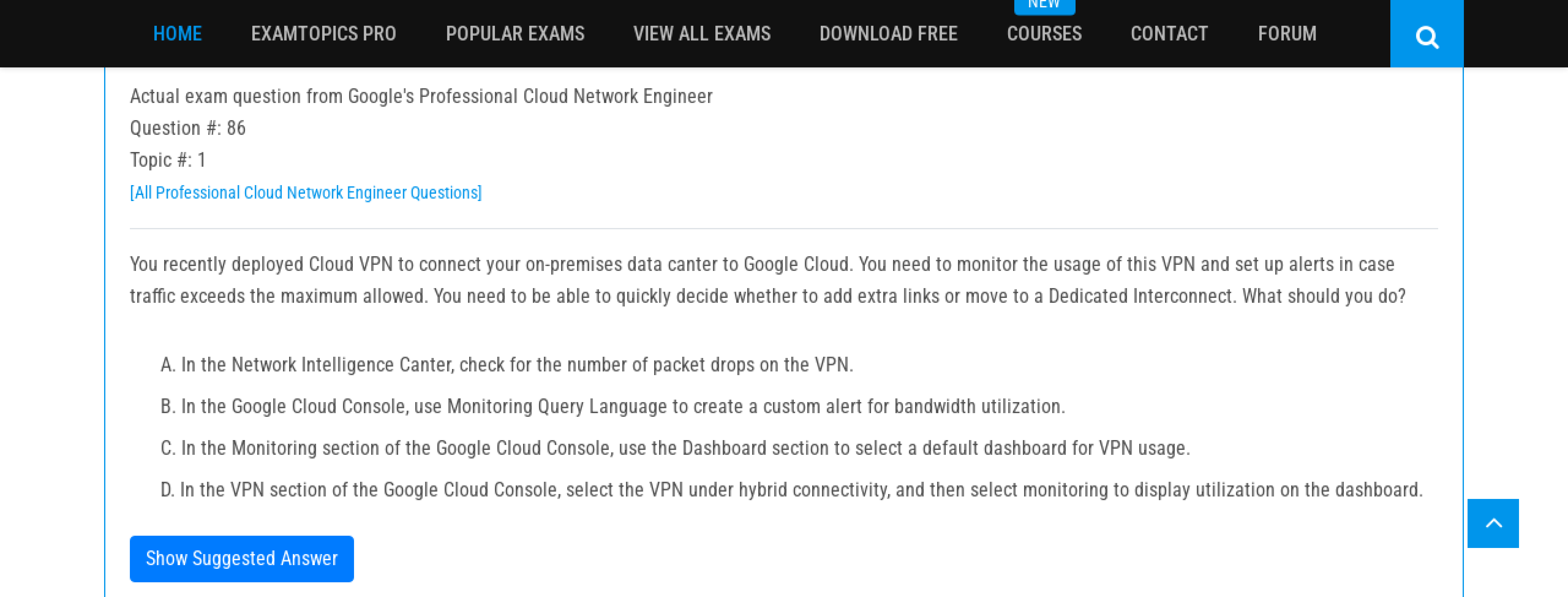
You are developing an HTTP API hosted on a Compute Engine virtual machine instance that must be invoked only by multiple clients within the same Virtual Private Cloud (VPC). You want clients to be able to get the IP address of the service. What should you do?

A. Reserve a static external IP address and assign it to an HTTP(S) load balancing service's forwarding rule. Clients should use this IP address to connect to the service.

B. Ensure that clients use Compute Engine internal DNS by connecting to the instance name with the url https://[INSTANCE_NAME].[ZONE].c.[PROJECT_ID].internal/.

C. Reserve a static external IP address and assign it to an HTTP(S) load balancing service's forwarding rule. Then, define an A record in Cloud DNS. Clients should use the name of the A record to connect to the service.

D. Ensure that clients use Compute Engine internal DNS by connecting to the instance name with the url https://[API_NAME]/[API_VERSION]/.



Actual exam question from Google's Professional Cloud Network Engineer

Question #: 86

Topic #: 1

[All Professional Cloud Network Engineer Questions]

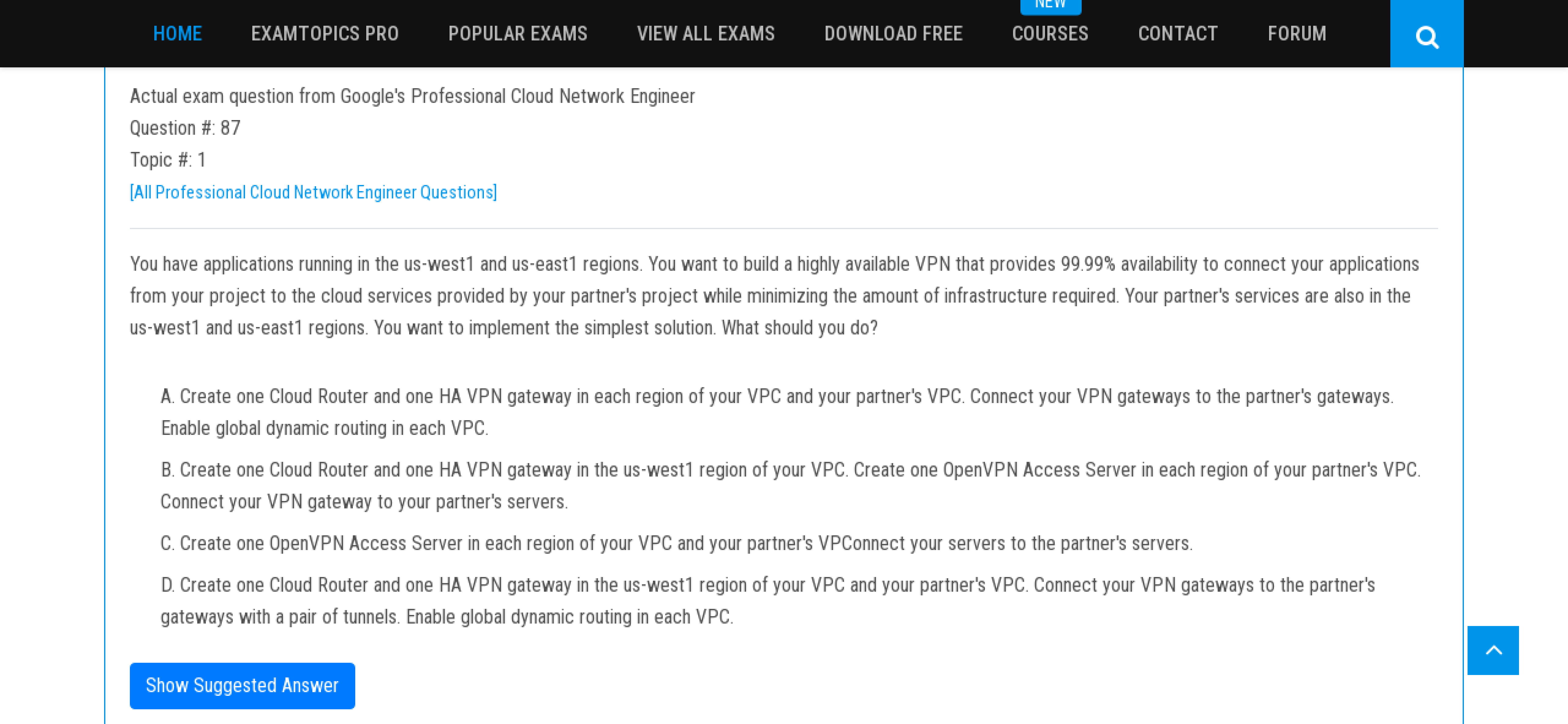
You recently deployed Cloud VPN to connect your on-premises data canter to Google Cloud. You need to monitor the usage of this VPN and set up alerts in case traffic exceeds the maximum allowed. You need to be able to quickly decide whether to add extra links or move to a Dedicated Interconnect. What should you do?

A. In the Network Intelligence Canter, check for the number of packet drops on the VPN.

B. In the Google Cloud Console, use Monitoring Query Language to create a custom alert for bandwidth utilization.

C. In the Monitoring section of the Google Cloud Console, use the Dashboard section to select a default dashboard for VPN usage.

D. In the VPN section of the Google Cloud Console, select the VPN under hybrid connectivity, and then select monitoring to display utilization on the dashboard.



Actual exam question from Google's Professional Cloud Network Engineer

Question #: 87

Topic #: 1

[All Professional Cloud Network Engineer Questions]

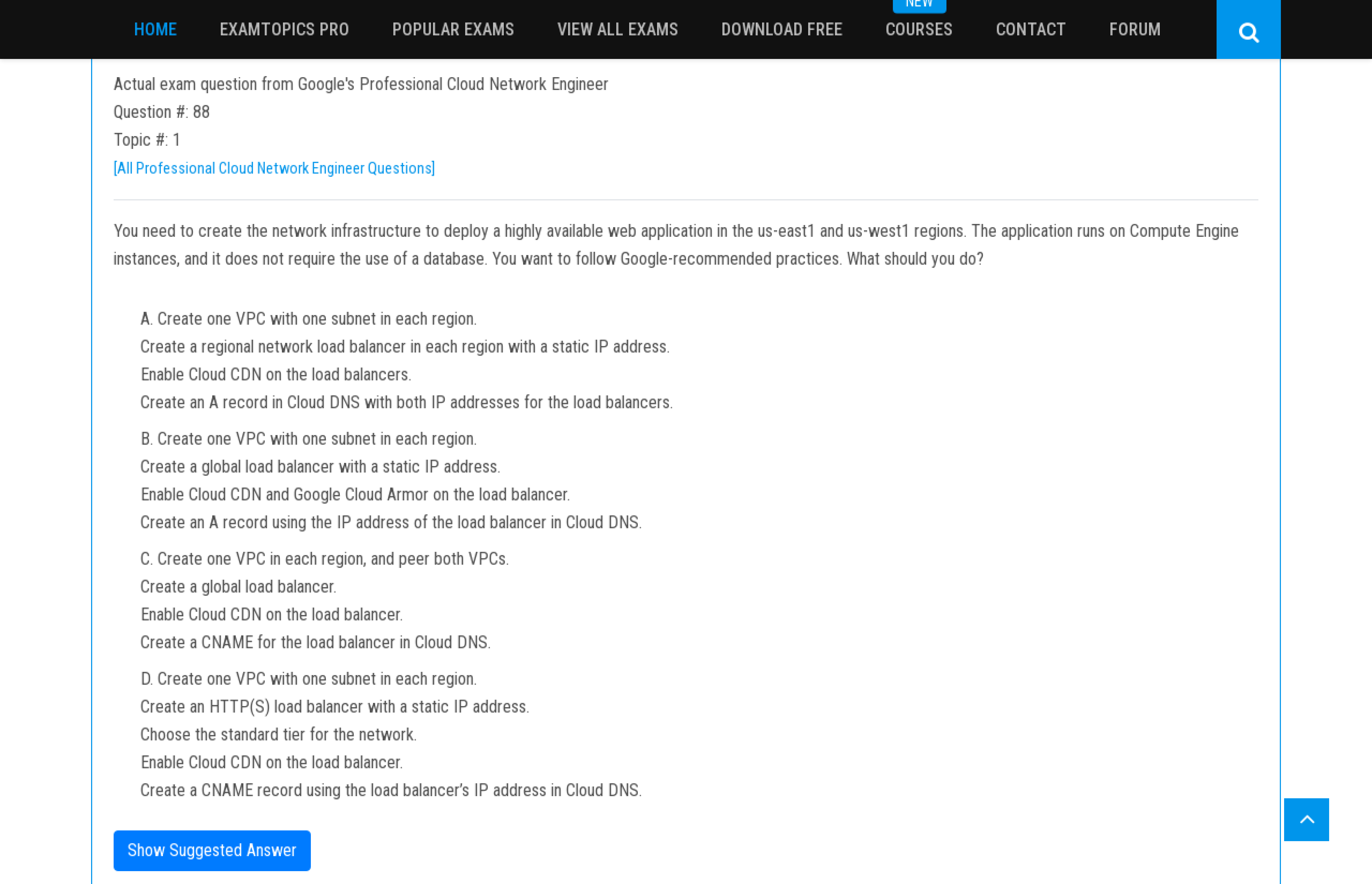
You have applications running in the us-west1 and us-east1 regions. You want to build a highly available VPN that provides 99.99% availability to connect your applications from your project to the cloud services provided by your partner's project while minimizing the amount of infrastructure required. Your partner's services are also in the us-west1 and us-east1 regions. You want to implement the simplest solution. What should you do?

A. Create one Cloud Router and one HA VPN gateway in each region of your VPC and your partner's VPC. Connect your VPN gateways to the partner's gateways. Enable global dynamic routing in each VPC.

B. Create one Cloud Router and one HA VPN gateway in the us-west1 region of your VPC. Create one OpenVPN Access Server in each region of your partner's VPC. Connect your VPN gateway to your partner's servers.

C. Create one OpenVPN Access Server in each region of your VPC and your partner's VPConnect your servers to the partner's servers.

D. Create one Cloud Router and one HA VPN gateway in the us-west1 region of your VPC and your partner's VPC. Connect your VPN gateways to the partner's gateways with a pair of tunnels. Enable global dynamic routing in each VPC.



Actual exam question from Google's Professional Cloud Network Engineer
Question #: 88
Topic #: 1
[All Professional Cloud Network Engineer Questions]

You need to create the network infrastructure to deploy a highly available web application in the us-east1 and us-west1 regions. The application runs on Compute Engine instances, and it does not require the use of a database. You want to follow Google-recommended practices. What should you do?

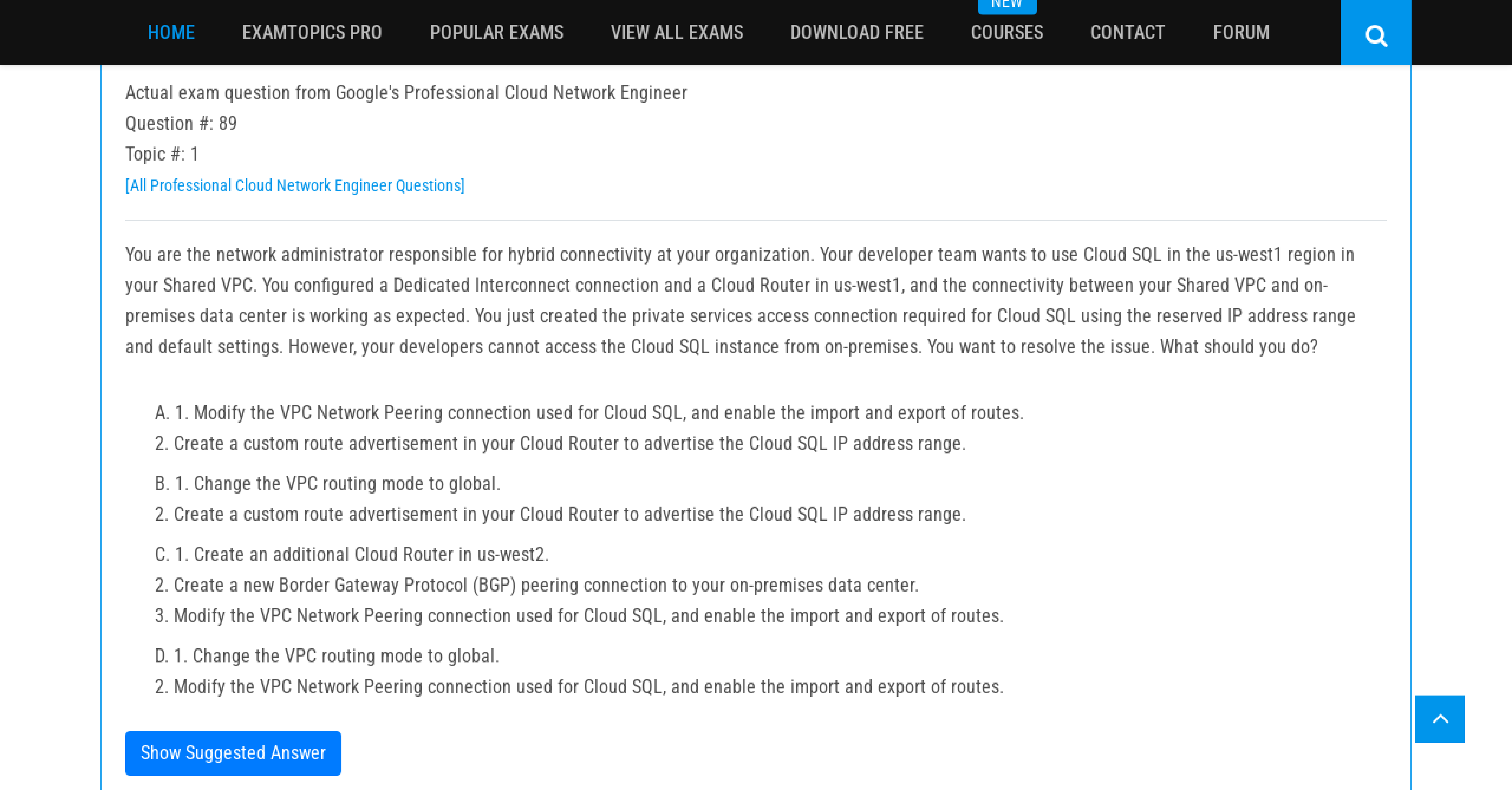
A. Create one VPC with one subnet in each region.
Create a regional network load balancer in each region with a static IP address.
Enable Cloud CDN on the load balancers.
Create an A record in Cloud DNS with both IP addresses for the load balancers.

B. Create one VPC with one subnet in each region.
Create a global load balancer with a static IP address.
Enable Cloud CDN and Google Cloud Armor on the load balancer.
Create an A record using the IP address of the load balancer in Cloud DNS.

C. Create one VPC in each region, and peer both VPCs.
Create a global load balancer.
Enable Cloud CDN on the load balancer.
Create a CNAME for the load balancer in Cloud DNS.

D. Create one VPC with one subnet in each region.
Create an HTTP(S) load balancer with a static IP address.
Choose the standard tier for the network.
Enable Cloud CDN on the load balancer.
Create a CNAME record using the load balancer's IP address in Cloud DNS.

Show Suggested Answer



Actual exam question from Google's Professional Cloud Network Engineer

Question #: 89

Topic #: 1

[All Professional Cloud Network Engineer Questions]

You are the network administrator responsible for hybrid connectivity at your organization. Your developer team wants to use Cloud SQL in the us-west1 region in your Shared VPC. You configured a Dedicated Interconnect connection and a Cloud Router in us-west1, and the connectivity between your Shared VPC and on-premises data center is working as expected. You just created the private services access connection required for Cloud SQL using the reserved IP address range and default settings. However, your developers cannot access the Cloud SQL instance from on-premises. You want to resolve the issue. What should you do?

A. 1. Modify the VPC Network Peering connection used for Cloud SQL, and enable the import and export of routes.
2. Create a custom route advertisement in your Cloud Router to advertise the Cloud SQL IP address range.

B. 1. Change the VPC routing mode to global.
2. Create a custom route advertisement in your Cloud Router to advertise the Cloud SQL IP address range.

C. 1. Create an additional Cloud Router in us-west2.
2. Create a new Border Gateway Protocol (BGP) peering connection to your on-premises data center.
3. Modify the VPC Network Peering connection used for Cloud SQL, and enable the import and export of routes.

D. 1. Change the VPC routing mode to global.
2. Modify the VPC Network Peering connection used for Cloud SQL, and enable the import and export of routes.

Show Suggested Answer

Actual exam question from Google's Professional Cloud Network Engineer
Question #: 90
Topic #: 1

[All Professional Cloud Network Engineer Questions]

Your company has separate Virtual Private Cloud (VPC) networks in a single region for two departments: Sales and Finance. The Sales department's VPC network already has connectivity to on-premises locations using HA VPN, and you have confirmed that the subnet ranges do not overlap. You plan to peer both VPC networks to use the same HA tunnels for on-premises connectivity, while providing internet connectivity for the Google Cloud workloads through Cloud NAT. Internet access from the on-premises locations should not flow through Google Cloud. You need to propagate all routes between the Finance department and on-premises locations. What should you do?

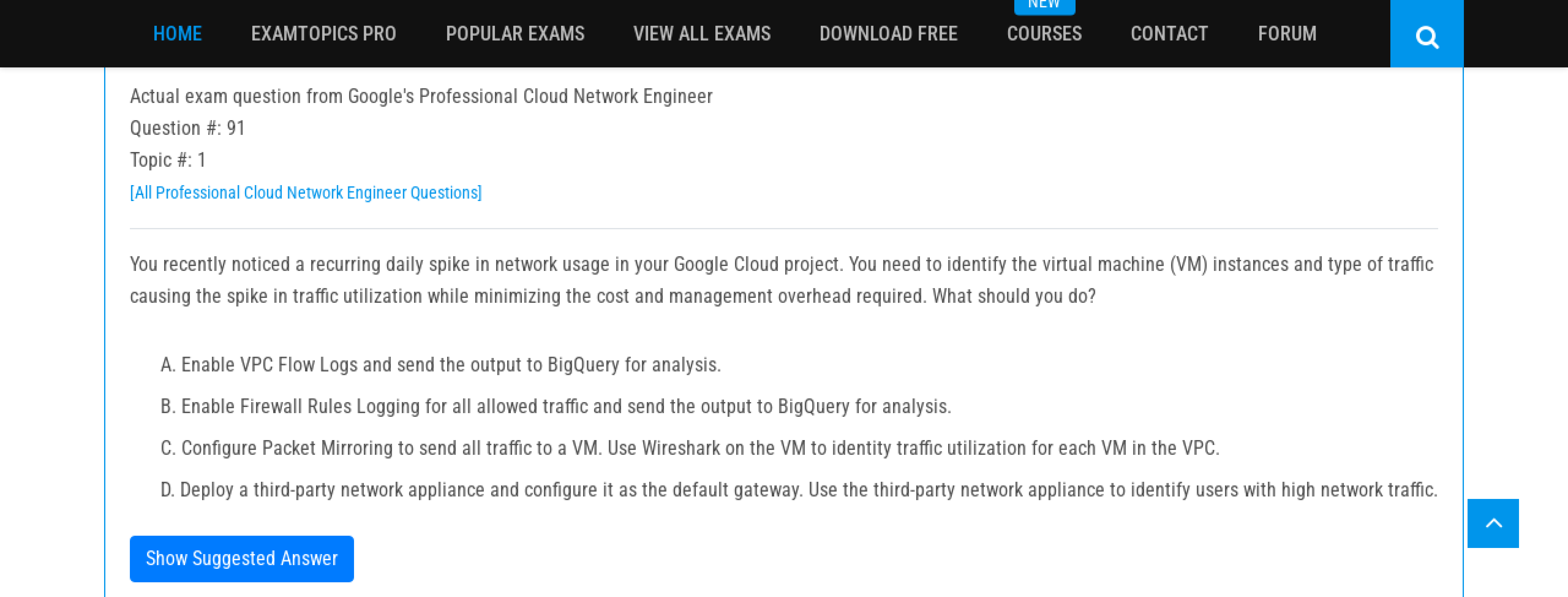
A. Peer the two VPCs, and use the default configuration for the Cloud Routers.

B. Peer the two VPCs, and use Cloud Router's custom route advertisements to announce the peered VPC network ranges to the on-premises locations.

C. Peer the two VPCs. Configure VPC Network Peering to export custom routes from Sales and import custom routes on Finance's VPC network. Use Cloud Router's custom route advertisements to announce a default route to the on-premises locations.

D. Peer the two VPCs. Configure VPC Network Peering to export custom routes from Sales and import custom routes on Finance's VPC network. Use Cloud Router's custom route advertisements to announce the peered VPC network ranges to the on-premises locations.

Show Suggested Answer



Actual exam question from Google's Professional Cloud Network Engineer

Question #: 91

Topic #: 1

[All Professional Cloud Network Engineer Questions]

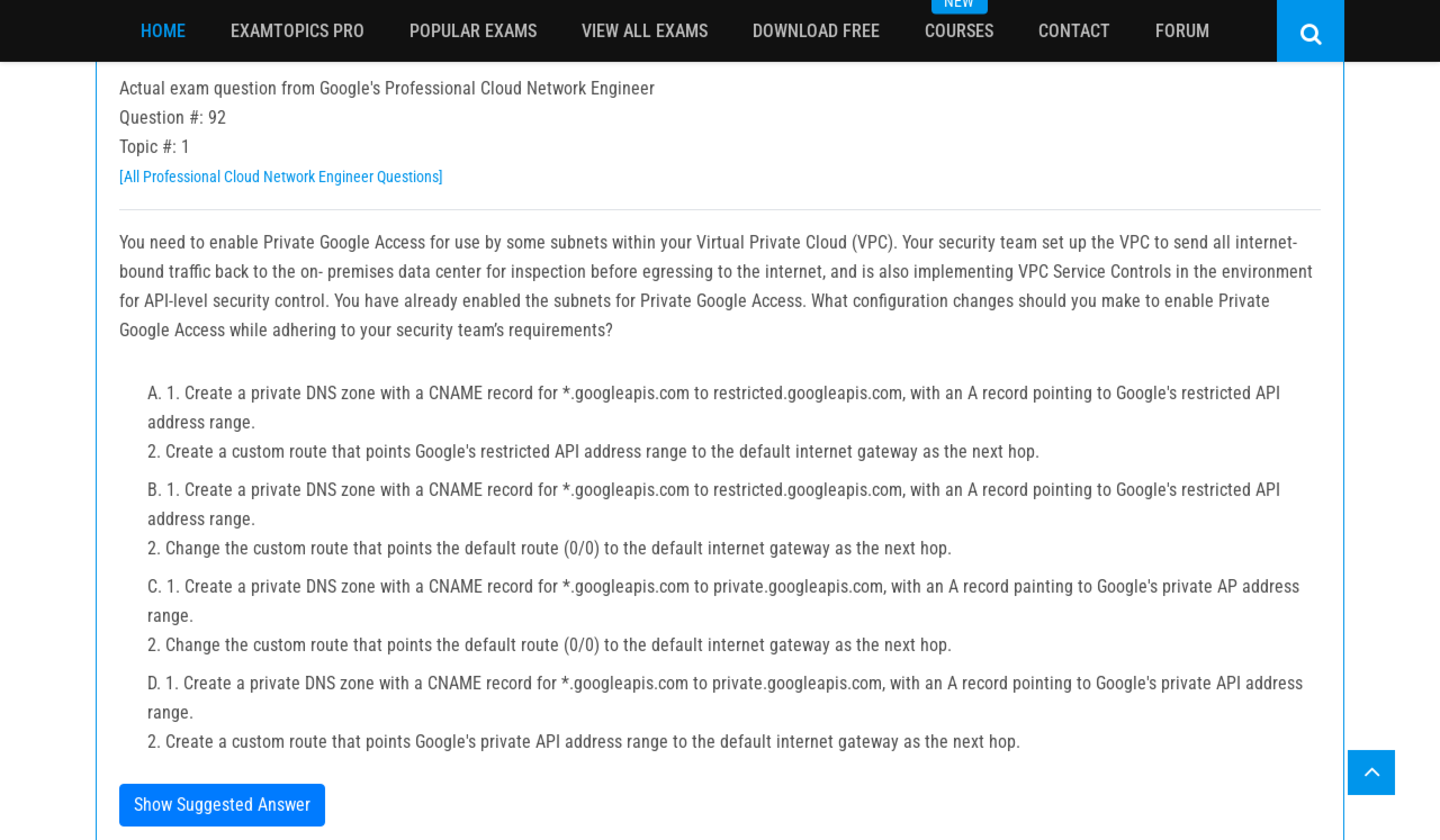
You recently noticed a recurring daily spike in network usage in your Google Cloud project. You need to identify the virtual machine (VM) instances and type of traffic causing the spike in traffic utilization while minimizing the cost and management overhead required. What should you do?

A. Enable VPC Flow Logs and send the output to BigQuery for analysis.

B. Enable Firewall Rules Logging for all allowed traffic and send the output to BigQuery for analysis.

C. Configure Packet Mirroring to send all traffic to a VM. Use Wireshark on the VM to identity traffic utilization for each VM in the VPC.

D. Deploy a third-party network appliance and configure it as the default gateway. Use the third-party network appliance to identify users with high network traffic.



Actual exam question from Google's Professional Cloud Network Engineer

Question #: 92

Topic #: 1

[All Professional Cloud Network Engineer Questions]

You need to enable Private Google Access for use by some subnets within your Virtual Private Cloud (VPC). Your security team set up the VPC to send all internet-bound traffic back to the on- premises data center for inspection before egressing to the internet, and is also implementing VPC Service Controls in the environment for API-level security control. You have already enabled the subnets for Private Google Access. What configuration changes should you make to enable Private Google Access while adhering to your security team's requirements?

A. 1. Create a private DNS zone with a CNAME record for *.googleapis.com to restricted.googleapis.com, with an A record pointing to Google's restricted API address range.
2. Create a custom route that points Google's restricted API address range to the default internet gateway as the next hop.

B. 1. Create a private DNS zone with a CNAME record for *.googleapis.com to restricted.googleapis.com, with an A record pointing to Google's restricted API address range.
2. Change the custom route that points the default route (0/0) to the default internet gateway as the next hop.

C. 1. Create a private DNS zone with a CNAME record for *.googleapis.com to private.googleapis.com, with an A record painting to Google's private AP address range.
2. Change the custom route that points the default route (0/0) to the default internet gateway as the next hop.

D. 1. Create a private DNS zone with a CNAME record for *.googleapis.com to private.googleapis.com, with an A record pointing to Google's private API address range.
2. Create a custom route that points Google's private API address range to the default internet gateway as the next hop.

Show Suggested Answer

Actual exam question from Google's Professional Cloud Network Engineer

Question #: 93

Topic #: 1

[All Professional Cloud Network Engineer Questions]

You have deployed an HTTP(s) load balancer, but health checks to port 80 on the Compute Engine virtual machine instance are failing, and no traffic is sent to your instances. You want to resolve the problem. Which commands should you run?

A. gcloud compute instances add-access-config instance-1

B. gcloud compute firewall-rules create allow-lb --network load-balancer --allow tcp --destination-ranges 130.211.0.0/22,35.191.0.0/16 --direction EGRESS

C. gcloud compute firewall-rules create allow-lb --network load-balancer --allow tcp --source-ranges 130.211.0.0/22,35.191.0.0/16 --direction INGRESS

D. gcloud compute health-checks update http health-check --unhealthy-threshold 10

Show Suggested Answer

Actual exam question from Google's Professional Cloud Network Engineer

Question #: 94

Topic #: 1

[All Professional Cloud Network Engineer Questions]

You deployed a hub-and-spoke architecture in your Google Cloud environment that uses VPC Network Peering to connect the spokes to the hub. For security reasons, you deployed a private Google Kubernetes Engine (GKE) cluster in one of the spoke projects with a private endpoint for the control plane. You configured authorized networks to be the subnet range where the GKE nodes are deployed. When you attempt to reach the GKE control plane from a different spoke project, you cannot access it. You need to allow access to the GKE control plane from the other spoke projects. What should you do?

A. Add a firewall rule that allows port 443 from the other spoke projects.

B. Enable Private Google Access on the subnet where the GKE nodes are deployed.

C. Configure the authorized networks to be the subnet ranges of the other spoke projects.

D. Deploy a proxy in the spoke project where the GKE nodes are deployed and connect to the control plane through the proxy.

Show Suggested Answer

Actual exam question from Google's Professional Cloud Network Engineer

Question #: 95

Topic #: 1

[All Professional Cloud Network Engineer Questions]

You recently deployed your application in Google Cloud. You need to verify your Google Cloud network configuration before deploying your on-premises workloads. You want to confirm that your Google Cloud network configuration allows traffic to flow from your cloud resources to your on- premises network. This validation should also analyze and diagnose potential failure points in your Google Cloud network configurations without sending any data plane test traffic. What should you do?

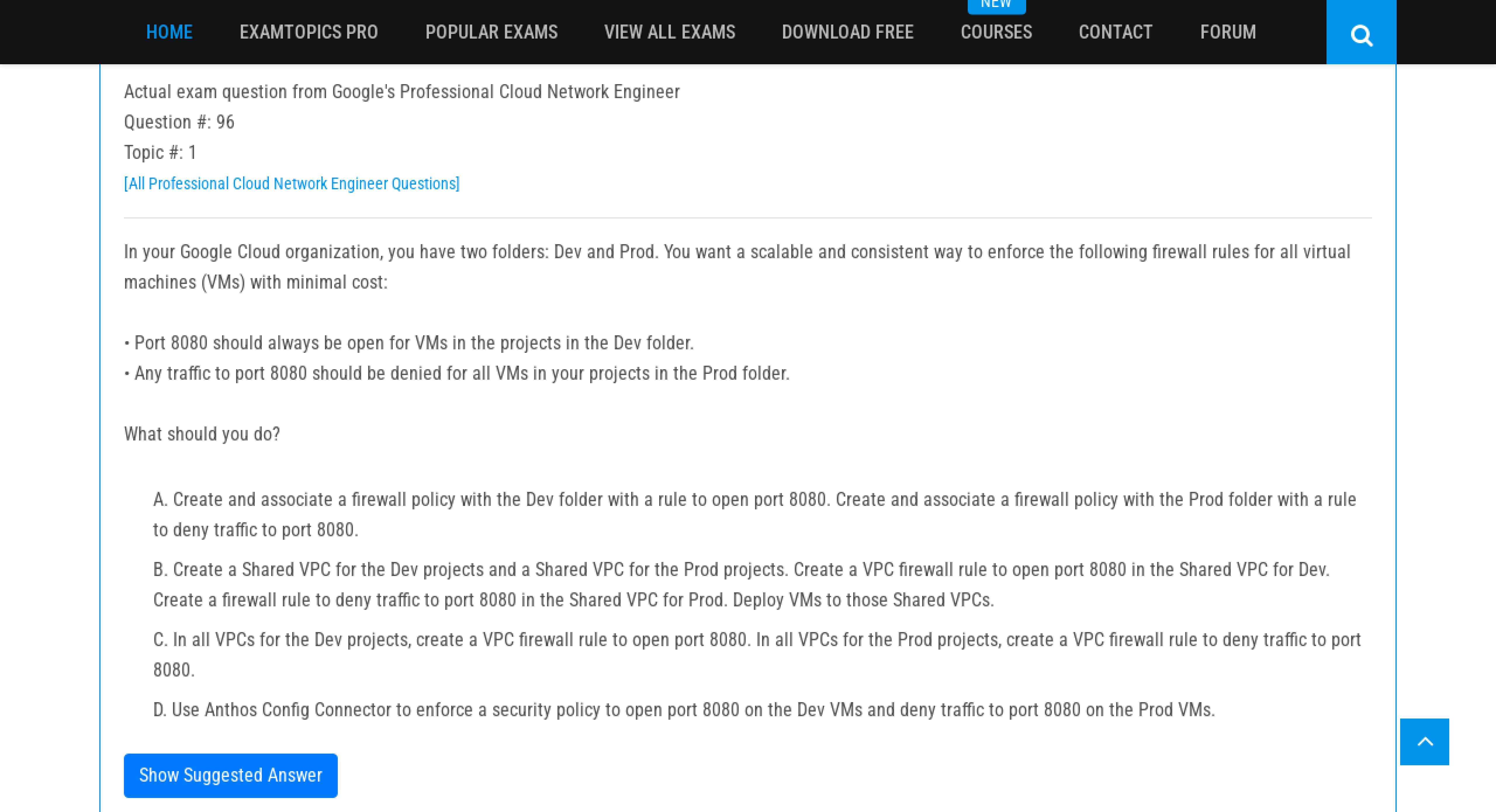
A. Use Network Intelligence Center's Connectivity Tests.

B. Enable Packet Mirroring on your application and send test traffic.

C. Use Network Intelligence Center's Network Topology visualizations.

D. Enable VPC Flow Logs and send test traffic.

Show Suggested Answer



Actual exam question from Google's Professional Cloud Network Engineer

Question #: 96

Topic #: 1

[All Professional Cloud Network Engineer Questions]

In your Google Cloud organization, you have two folders: Dev and Prod. You want a scalable and consistent way to enforce the following firewall rules for all virtual machines (VMs) with minimal cost:

- Port 8080 should always be open for VMs in the projects in the Dev folder.
- Any traffic to port 8080 should be denied for all VMs in your projects in the Prod folder.

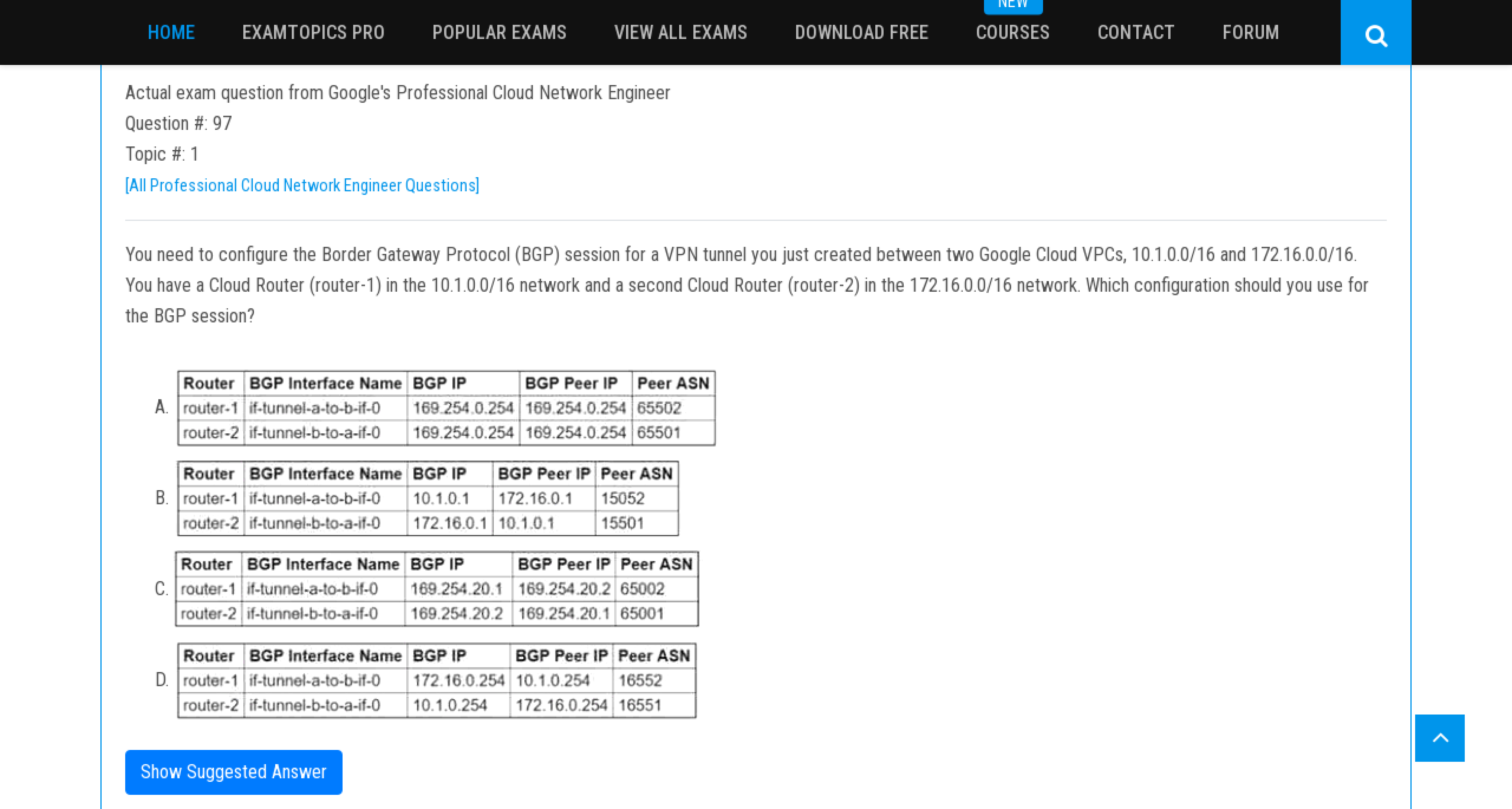
What should you do?

A. Create and associate a firewall policy with the Dev folder with a rule to open port 8080. Create and associate a firewall policy with the Prod folder with a rule to deny traffic to port 8080.

B. Create a Shared VPC for the Dev projects and a Shared VPC for the Prod projects. Create a VPC firewall rule to open port 8080 in the Shared VPC for Dev. Create a firewall rule to deny traffic to port 8080 in the Shared VPC for Prod. Deploy VMs to those Shared VPCs.

C. In all VPCs for the Dev projects, create a VPC firewall rule to open port 8080. In all VPCs for the Prod projects, create a VPC firewall rule to deny traffic to port 8080.

D. Use Anthos Config Connector to enforce a security policy to open port 8080 on the Dev VMs and deny traffic to port 8080 on the Prod VMs.



Actual exam question from Google's Professional Cloud Network Engineer

Question #: 97

Topic #: 1

[All Professional Cloud Network Engineer Questions]

You need to configure the Border Gateway Protocol (BGP) session for a VPN tunnel you just created between two Google Cloud VPCs, 10.1.0.0/16 and 172.16.0.0/16. You have a Cloud Router (router-1) in the 10.1.0.0/16 network and a second Cloud Router (router-2) in the 172.16.0.0/16 network. Which configuration should you use for the BGP session?

A.

Router	BGP Interface Name	BGP IP	BGP Peer IP	Peer ASN
router-1	if-tunnel-a-to-b-if-0	169.254.0.254	169.254.0.254	65502
router-2	if-tunnel-b-to-a-if-0	169.254.0.254	169.254.0.254	65501

B.

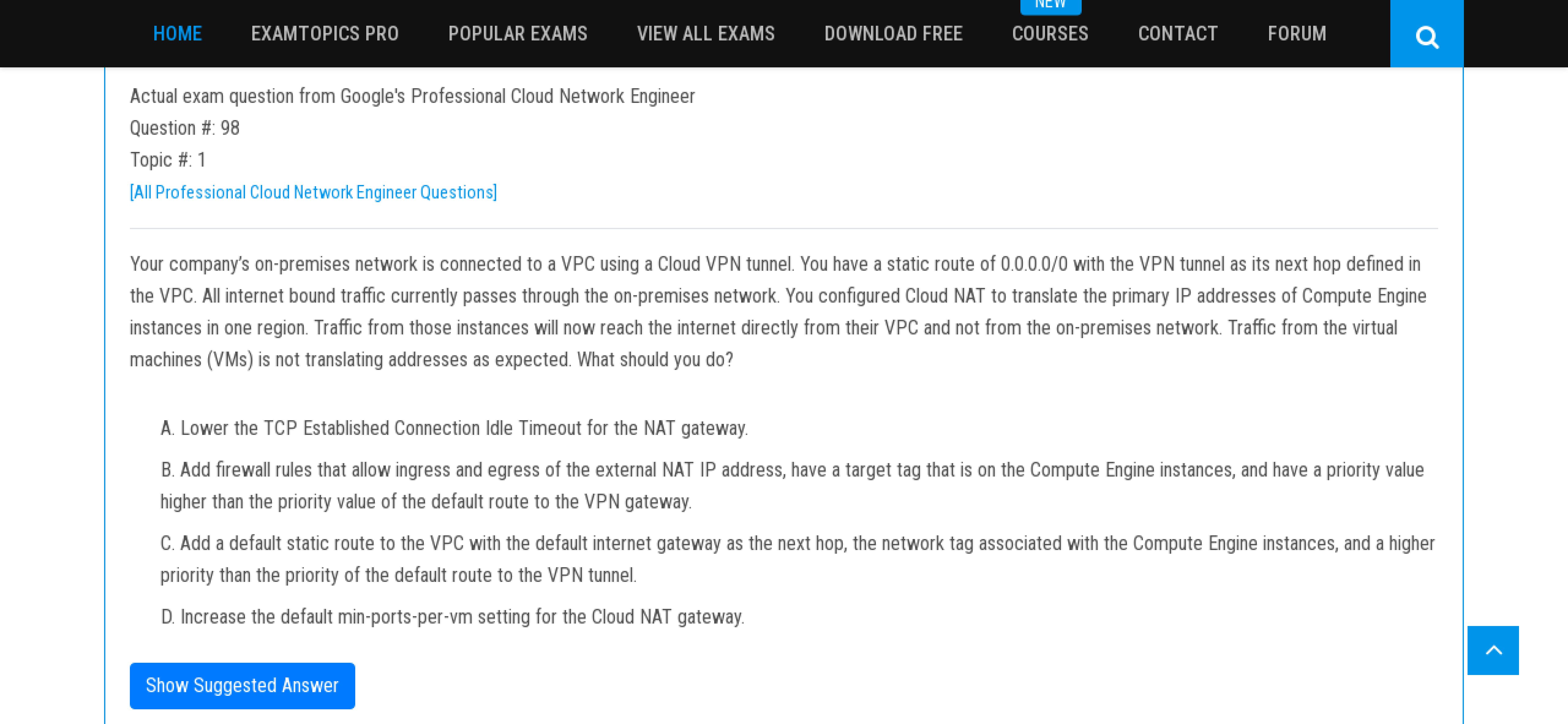
Router	BGP Interface Name	BGP IP	BGP Peer IP	Peer ASN
router-1	if-tunnel-a-to-b-if-0	10.1.0.1	172.16.0.1	15052
router-2	if-tunnel-b-to-a-if-0	172.16.0.1	10.1.0.1	15501

C.

Router	BGP Interface Name	BGP IP	BGP Peer IP	Peer ASN
router-1	if-tunnel-a-to-b-if-0	169.254.20.1	169.254.20.2	65002
router-2	if-tunnel-b-to-a-if-0	169.254.20.2	169.254.20.1	65001

D.

Router	BGP Interface Name	BGP IP	BGP Peer IP	Peer ASN
router-1	if-tunnel-a-to-b-if-0	172.16.0.254	10.1.0.254	16552
router-2	if-tunnel-b-to-a-if-0	10.1.0.254	172.16.0.254	16551



Actual exam question from Google's Professional Cloud Network Engineer

Question #: 98

Topic #: 1

[All Professional Cloud Network Engineer Questions]

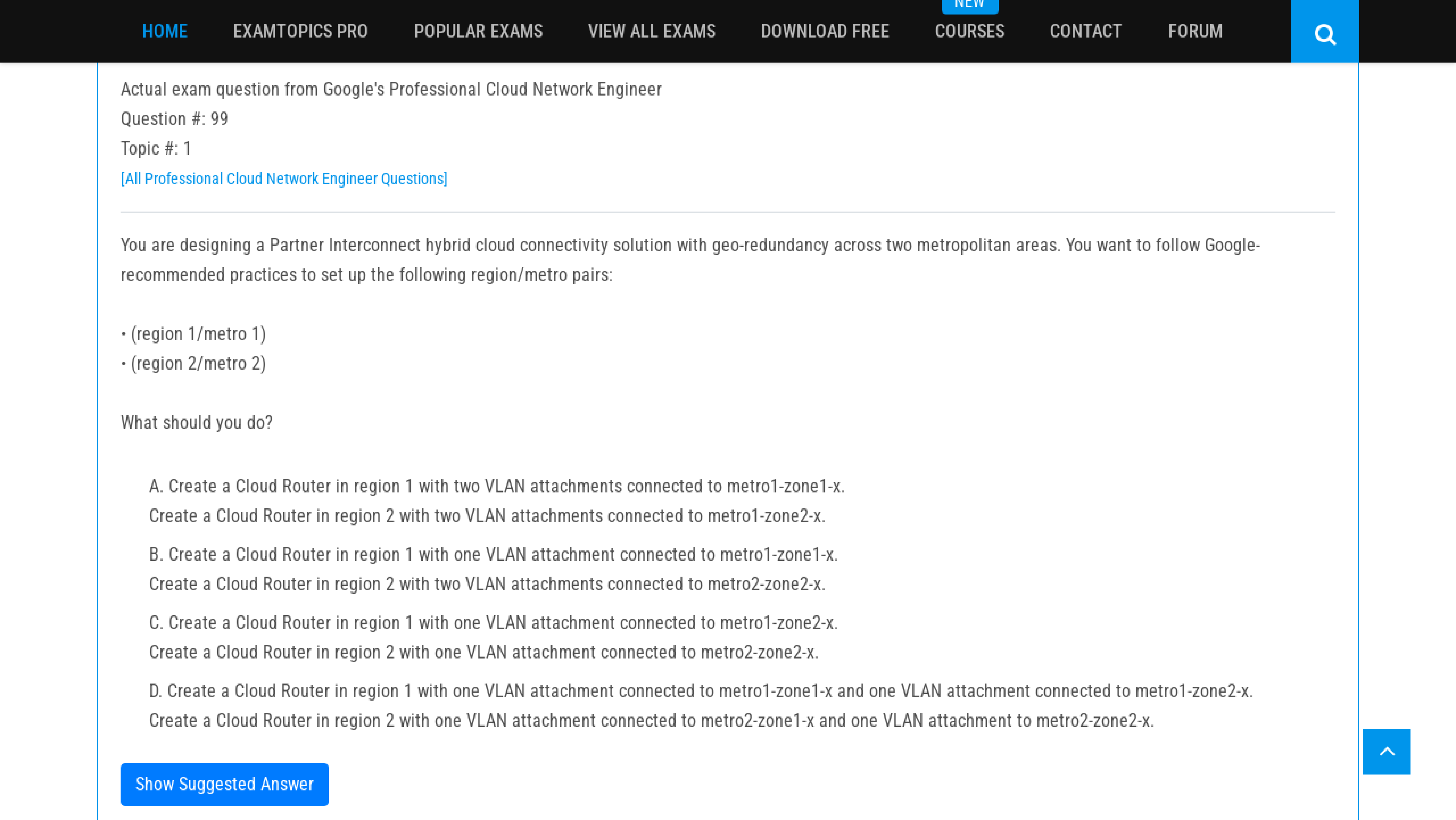
Your company's on-premises network is connected to a VPC using a Cloud VPN tunnel. You have a static route of 0.0.0.0/0 with the VPN tunnel as its next hop defined in the VPC. All internet bound traffic currently passes through the on-premises network. You configured Cloud NAT to translate the primary IP addresses of Compute Engine instances in one region. Traffic from those instances will now reach the internet directly from their VPC and not from the on-premises network. Traffic from the virtual machines (VMs) is not translating addresses as expected. What should you do?

A. Lower the TCP Established Connection Idle Timeout for the NAT gateway.

B. Add firewall rules that allow ingress and egress of the external NAT IP address, have a target tag that is on the Compute Engine instances, and have a priority value higher than the priority value of the default route to the VPN gateway.

C. Add a default static route to the VPC with the default internet gateway as the next hop, the network tag associated with the Compute Engine instances, and a higher priority than the priority of the default route to the VPN tunnel.

D. Increase the default min-ports-per-vm setting for the Cloud NAT gateway.



Actual exam question from Google's Professional Cloud Network Engineer
Question #: 99
Topic #: 1

[All Professional Cloud Network Engineer Questions]

You are designing a Partner Interconnect hybrid cloud connectivity solution with geo-redundancy across two metropolitan areas. You want to follow Google-recommended practices to set up the following region/metro pairs:

• (region 1/metro 1)
• (region 2/metro 2)

What should you do?

A. Create a Cloud Router in region 1 with two VLAN attachments connected to metro1-zone1-x.
Create a Cloud Router in region 2 with two VLAN attachments connected to metro1-zone2-x.

B. Create a Cloud Router in region 1 with one VLAN attachment connected to metro1-zone1-x.
Create a Cloud Router in region 2 with two VLAN attachments connected to metro2-zone2-x.

C. Create a Cloud Router in region 1 with one VLAN attachment connected to metro1-zone2-x.
Create a Cloud Router in region 2 with one VLAN attachment connected to metro2-zone2-x.

D. Create a Cloud Router in region 1 with one VLAN attachment connected to metro1-zone1-x and one VLAN attachment connected to metro1-zone2-x.
Create a Cloud Router in region 2 with one VLAN attachment connected to metro2-zone1-x and one VLAN attachment to metro2-zone2-x.

Show Suggested Answer

Actual exam question from Google's Professional Cloud Network Engineer
Question #: 100
Topic #: 1
[All Professional Cloud Network Engineer Questions]

You are designing the network architecture for your organization. Your organization has three developer teams: Web, App, and Database. All of the developer teams require access to Compute Engine instances to perform their critical tasks. You are part of a small network and security team that needs to provide network access to the developers. You need to maintain centralized control over network resources, including subnets, routes, and firewalls. You want to minimize operational overhead. How should you design this topology?

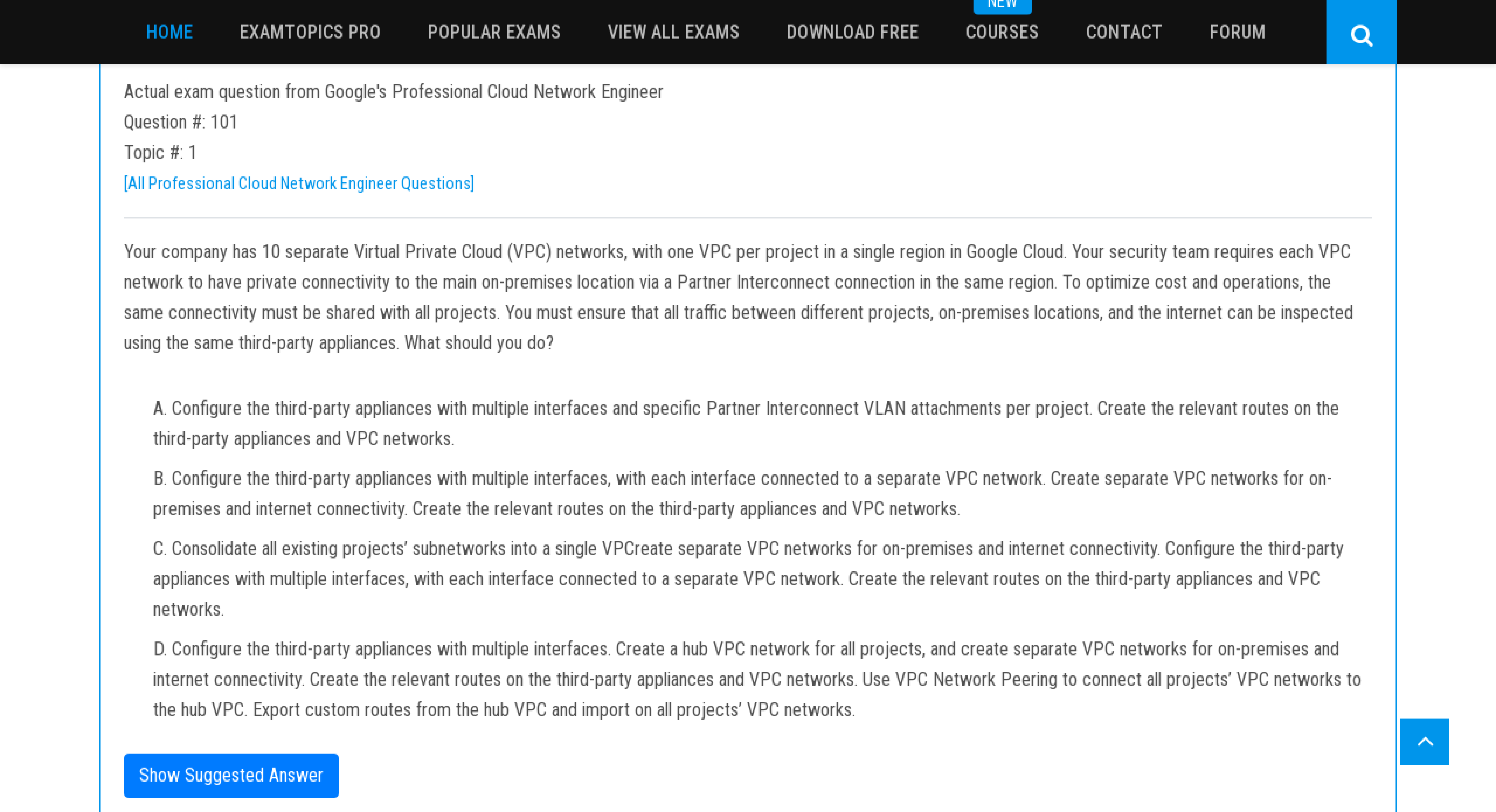
A. Configure a host project with a Shared VPC. Create service projects for Web, App, and Database.

B. Configure one VPC for Web, one VPC for App, and one VPC for Database. Configure HA VPN between each VPC.

C. Configure three Shared VPC host projects, each with a service project: one for Web, one for App, and one for Database.

D. Configure one VPC for Web, one VPC for App, and one VPC for Database. Use VPC Network Peering to connect all VPCs in a full mesh.

Show Suggested Answer



Actual exam question from Google's Professional Cloud Network Engineer

Question #: 101

Topic #: 1

[All Professional Cloud Network Engineer Questions]

Your company has 10 separate Virtual Private Cloud (VPC) networks, with one VPC per project in a single region in Google Cloud. Your security team requires each VPC network to have private connectivity to the main on-premises location via a Partner Interconnect connection in the same region. To optimize cost and operations, the same connectivity must be shared with all projects. You must ensure that all traffic between different projects, on-premises locations, and the internet can be inspected using the same third-party appliances. What should you do?

A. Configure the third-party appliances with multiple interfaces and specific Partner Interconnect VLAN attachments per project. Create the relevant routes on the third-party appliances and VPC networks.

B. Configure the third-party appliances with multiple interfaces, with each interface connected to a separate VPC network. Create separate VPC networks for on-premises and internet connectivity. Create the relevant routes on the third-party appliances and VPC networks.

C. Consolidate all existing projects' subnetworks into a single VPCreate separate VPC networks for on-premises and internet connectivity. Configure the third-party appliances with multiple interfaces, with each interface connected to a separate VPC network. Create the relevant routes on the third-party appliances and VPC networks.

D. Configure the third-party appliances with multiple interfaces. Create a hub VPC network for all projects, and create separate VPC networks for on-premises and internet connectivity. Create the relevant routes on the third-party appliances and VPC networks. Use VPC Network Peering to connect all projects' VPC networks to the hub VPC. Export custom routes from the hub VPC and import on all projects' VPC networks.

Actual exam question from Google's Professional Cloud Network Engineer
Question #: 102
Topic #: 1

[All Professional Cloud Network Engineer Questions]

You have just deployed your infrastructure on Google Cloud. You now need to configure the DNS to meet the following requirements:

- Your on-premises resources should resolve your Google Cloud zones.
- Your Google Cloud resources should resolve your on-premises zones.
- You need the ability to resolve “.internal” zones provisioned by Google Cloud.

What should you do?

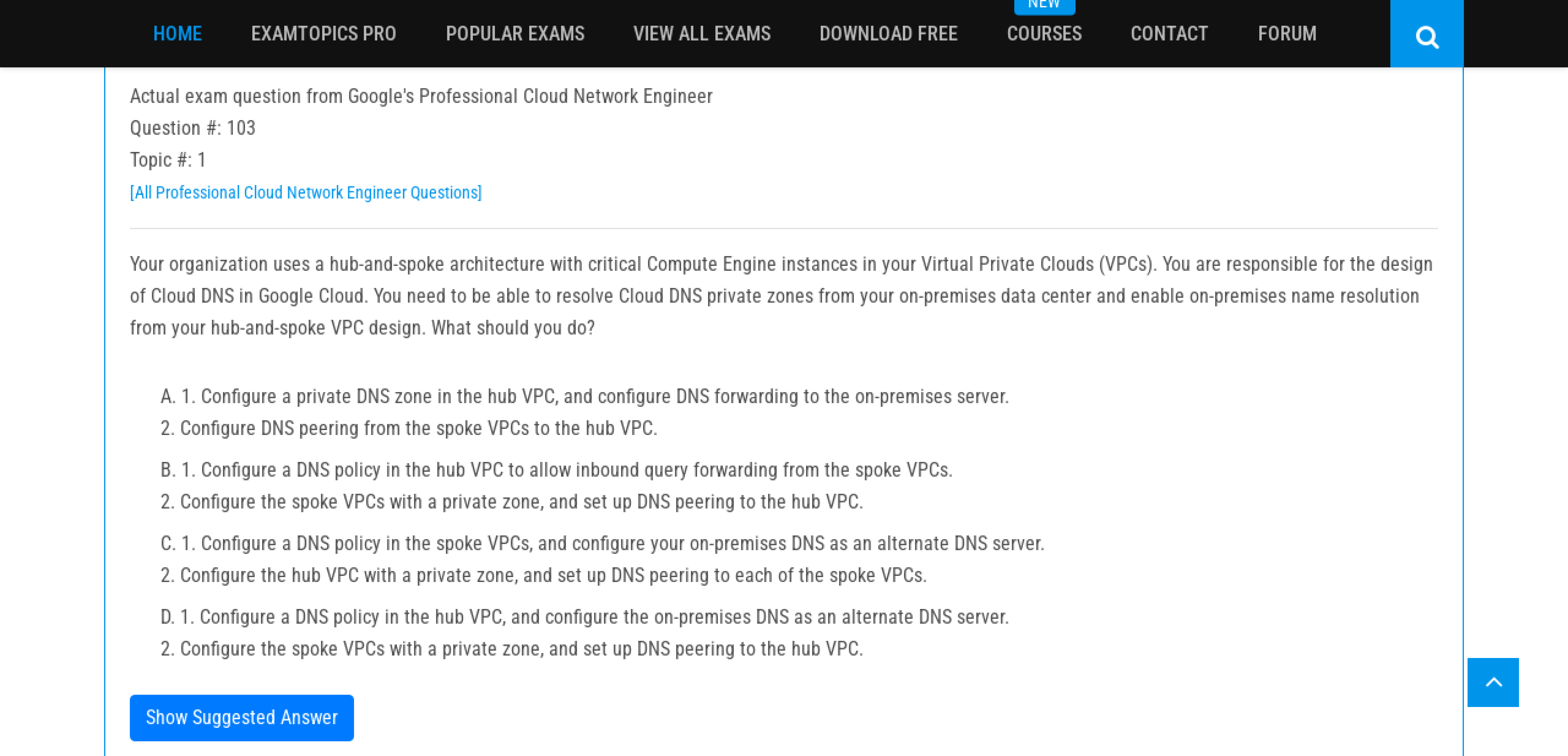
A. Configure an outbound server policy, and set your alternative name server to be your on-premises DNS resolver. Configure your on-premises DNS resolver to forward Google Cloud zone queries to Google's public DNS 8.8.8.8.

B. Configure both an inbound server policy and outbound DNS forwarding zones with the target as the on-premises DNS resolver. Configure your on-premises DNS resolver to forward Google Cloud zone queries to Google Cloud's DNS resolver.

C. Configure an outbound DNS server policy, and set your alternative name server to be your on-premises DNS resolver. Configure your on-premises DNS resolver to forward Google Cloud zone queries to Google Cloud's DNS resolver.

D. Configure Cloud DNS to DNS peer with your on-premises DNS resolver. Configure your on-premises DNS resolver to forward Google Cloud zone queries to Google's public DNS 8.8.8.8.

Show Suggested Answer



Actual exam question from Google's Professional Cloud Network Engineer

Question #: 103

Topic #: 1

[All Professional Cloud Network Engineer Questions]

Your organization uses a hub-and-spoke architecture with critical Compute Engine instances in your Virtual Private Clouds (VPCs). You are responsible for the design of Cloud DNS in Google Cloud. You need to be able to resolve Cloud DNS private zones from your on-premises data center and enable on-premises name resolution from your hub-and-spoke VPC design. What should you do?

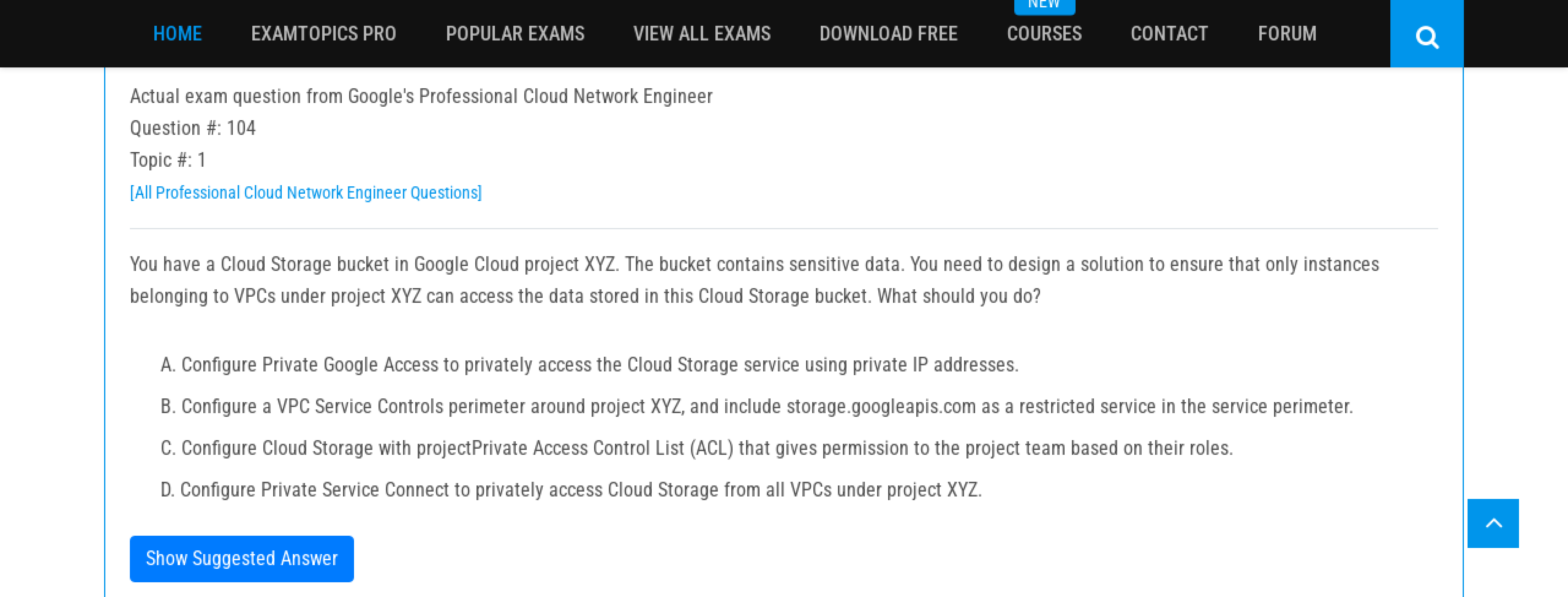
A. 1. Configure a private DNS zone in the hub VPC, and configure DNS forwarding to the on-premises server.
2. Configure DNS peering from the spoke VPCs to the hub VPC.

B. 1. Configure a DNS policy in the hub VPC to allow inbound query forwarding from the spoke VPCs.
2. Configure the spoke VPCs with a private zone, and set up DNS peering to the hub VPC.

C. 1. Configure a DNS policy in the spoke VPCs, and configure your on-premises DNS as an alternate DNS server.
2. Configure the hub VPC with a private zone, and set up DNS peering to each of the spoke VPCs.

D. 1. Configure a DNS policy in the hub VPC, and configure the on-premises DNS as an alternate DNS server.
2. Configure the spoke VPCs with a private zone, and set up DNS peering to the hub VPC.

Show Suggested Answer



Actual exam question from Google's Professional Cloud Network Engineer

Question #: 104

Topic #: 1

[All Professional Cloud Network Engineer Questions]

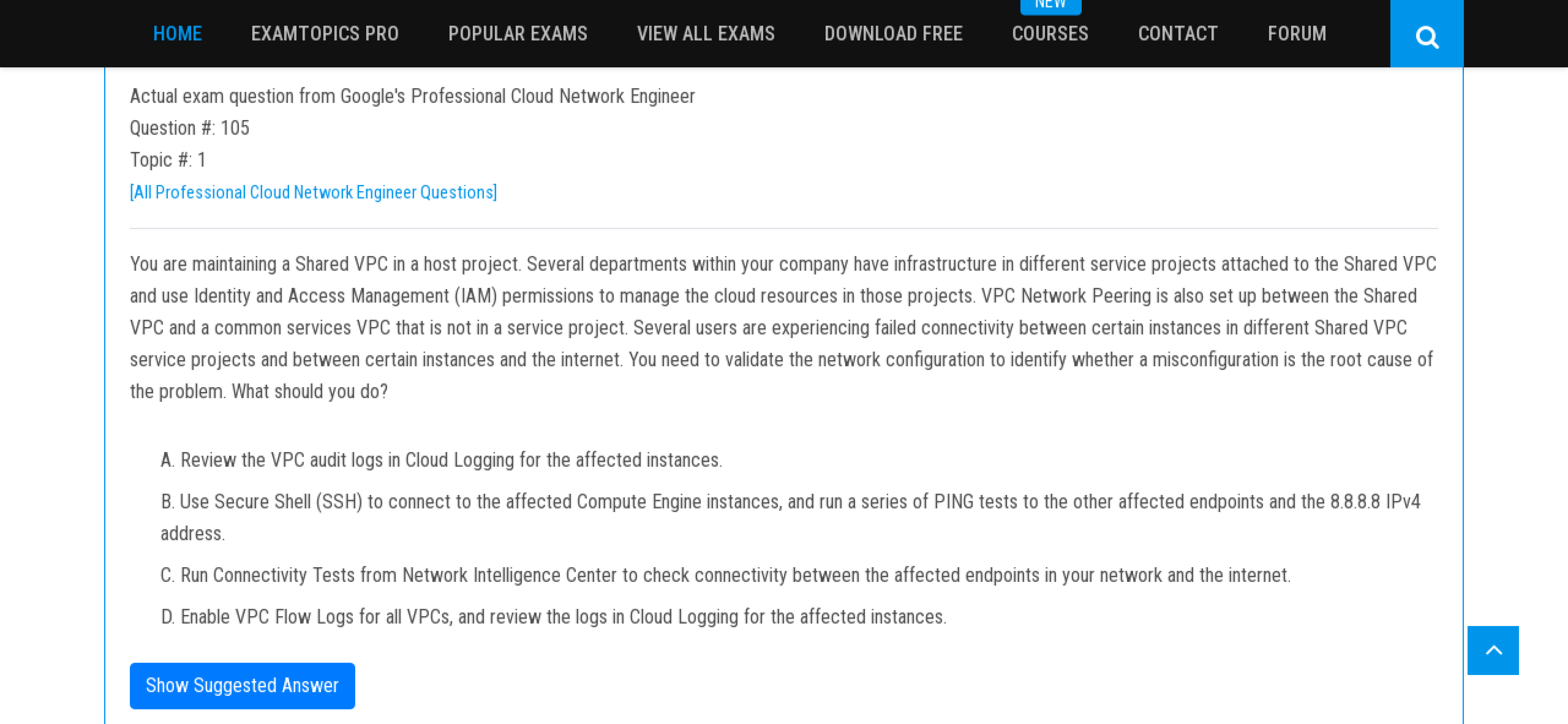
You have a Cloud Storage bucket in Google Cloud project XYZ. The bucket contains sensitive data. You need to design a solution to ensure that only instances belonging to VPCs under project XYZ can access the data stored in this Cloud Storage bucket. What should you do?

A. Configure Private Google Access to privately access the Cloud Storage service using private IP addresses.

B. Configure a VPC Service Controls perimeter around project XYZ, and include storage.googleapis.com as a restricted service in the service perimeter.

C. Configure Cloud Storage with projectPrivate Access Control List (ACL) that gives permission to the project team based on their roles.

D. Configure Private Service Connect to privately access Cloud Storage from all VPCs under project XYZ.



Actual exam question from Google's Professional Cloud Network Engineer

Question #: 105

Topic #: 1

[All Professional Cloud Network Engineer Questions]

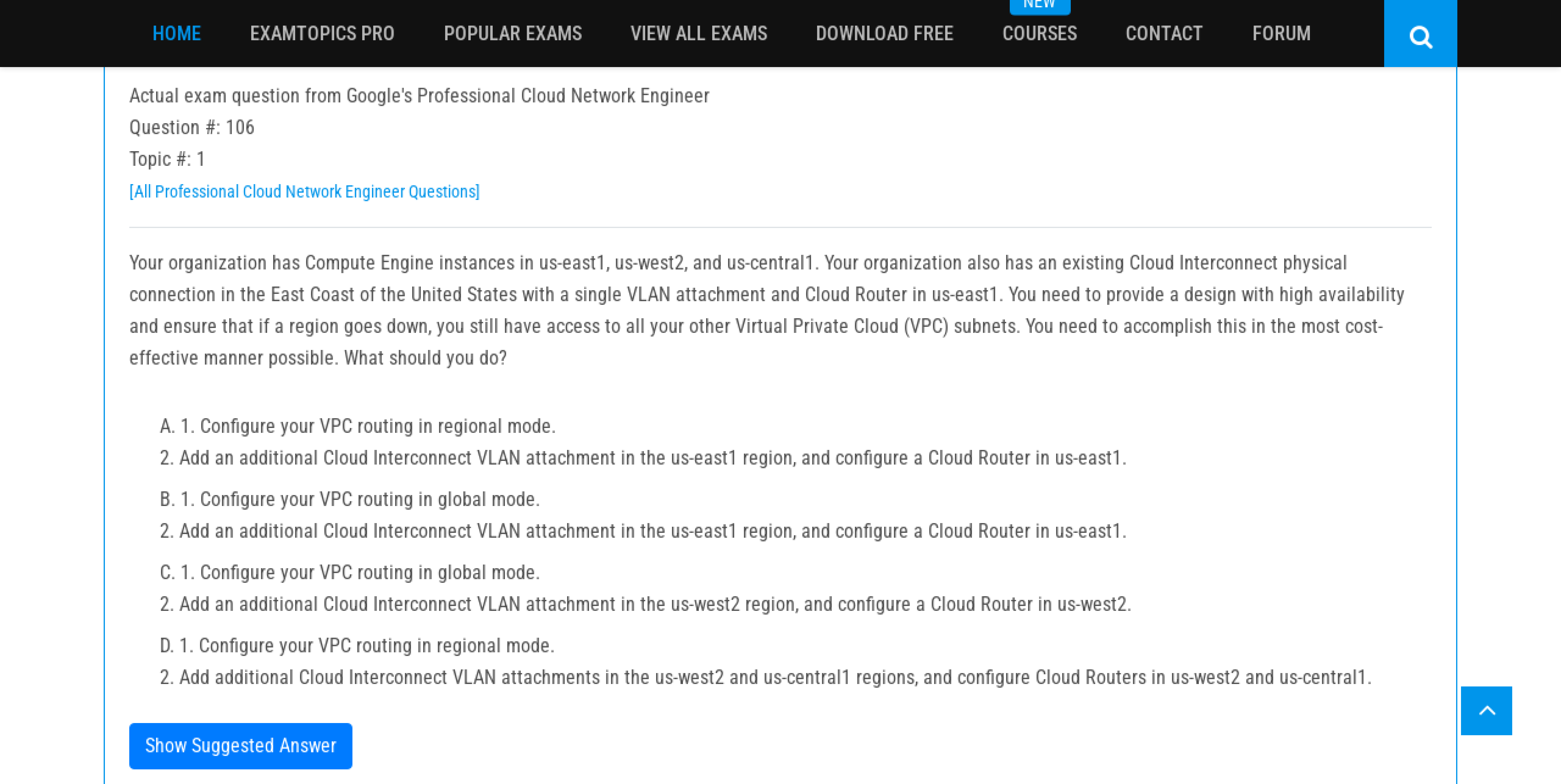
You are maintaining a Shared VPC in a host project. Several departments within your company have infrastructure in different service projects attached to the Shared VPC and use Identity and Access Management (IAM) permissions to manage the cloud resources in those projects. VPC Network Peering is also set up between the Shared VPC and a common services VPC that is not in a service project. Several users are experiencing failed connectivity between certain instances in different Shared VPC service projects and between certain instances and the internet. You need to validate the network configuration to identify whether a misconfiguration is the root cause of the problem. What should you do?

A. Review the VPC audit logs in Cloud Logging for the affected instances.

B. Use Secure Shell (SSH) to connect to the affected Compute Engine instances, and run a series of PING tests to the other affected endpoints and the 8.8.8.8 IPv4 address.

C. Run Connectivity Tests from Network Intelligence Center to check connectivity between the affected endpoints in your network and the internet.

D. Enable VPC Flow Logs for all VPCs, and review the logs in Cloud Logging for the affected instances.



Actual exam question from Google's Professional Cloud Network Engineer

Question #: 106

Topic #: 1

[All Professional Cloud Network Engineer Questions]

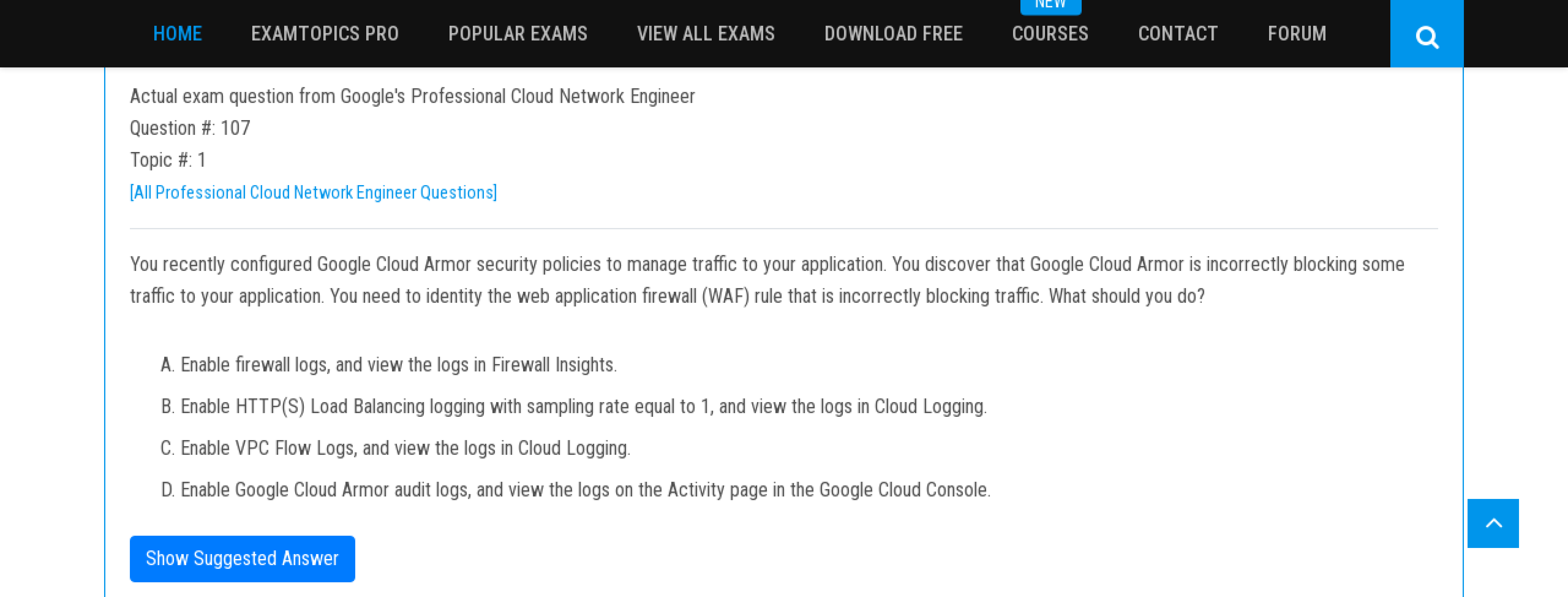
Your organization has Compute Engine instances in us-east1, us-west2, and us-central1. Your organization also has an existing Cloud Interconnect physical connection in the East Coast of the United States with a single VLAN attachment and Cloud Router in us-east1. You need to provide a design with high availability and ensure that if a region goes down, you still have access to all your other Virtual Private Cloud (VPC) subnets. You need to accomplish this in the most cost-effective manner possible. What should you do?

A. 1. Configure your VPC routing in regional mode.
2. Add an additional Cloud Interconnect VLAN attachment in the us-east1 region, and configure a Cloud Router in us-east1.

B. 1. Configure your VPC routing in global mode.
2. Add an additional Cloud Interconnect VLAN attachment in the us-east1 region, and configure a Cloud Router in us-east1.

C. 1. Configure your VPC routing in global mode.
2. Add an additional Cloud Interconnect VLAN attachment in the us-west2 region, and configure a Cloud Router in us-west2.

D. 1. Configure your VPC routing in regional mode.
2. Add additional Cloud Interconnect VLAN attachments in the us-west2 and us-central1 regions, and configure Cloud Routers in us-west2 and us-central1.



Actual exam question from Google's Professional Cloud Network Engineer
Question #: 107
Topic #: 1

[All Professional Cloud Network Engineer Questions]

You recently configured Google Cloud Armor security policies to manage traffic to your application. You discover that Google Cloud Armor is incorrectly blocking some traffic to your application. You need to identity the web application firewall (WAF) rule that is incorrectly blocking traffic. What should you do?

A. Enable firewall logs, and view the logs in Firewall Insights.

B. Enable HTTP(S) Load Balancing logging with sampling rate equal to 1, and view the logs in Cloud Logging.

C. Enable VPC Flow Logs, and view the logs in Cloud Logging.

D. Enable Google Cloud Armor audit logs, and view the logs on the Activity page in the Google Cloud Console.

Actual exam question from Google's Professional Cloud Network Engineer
Question #: 108
Topic #: 1

[All Professional Cloud Network Engineer Questions]

You are the Organization Admin for your company. One of your engineers is responsible for setting up multiple host projects across multiple folders and sharing subnets with service projects. You need to enable the engineer's Identity and Access Management (IAM) configuration to complete their task in the fewest number of steps. What should you do?

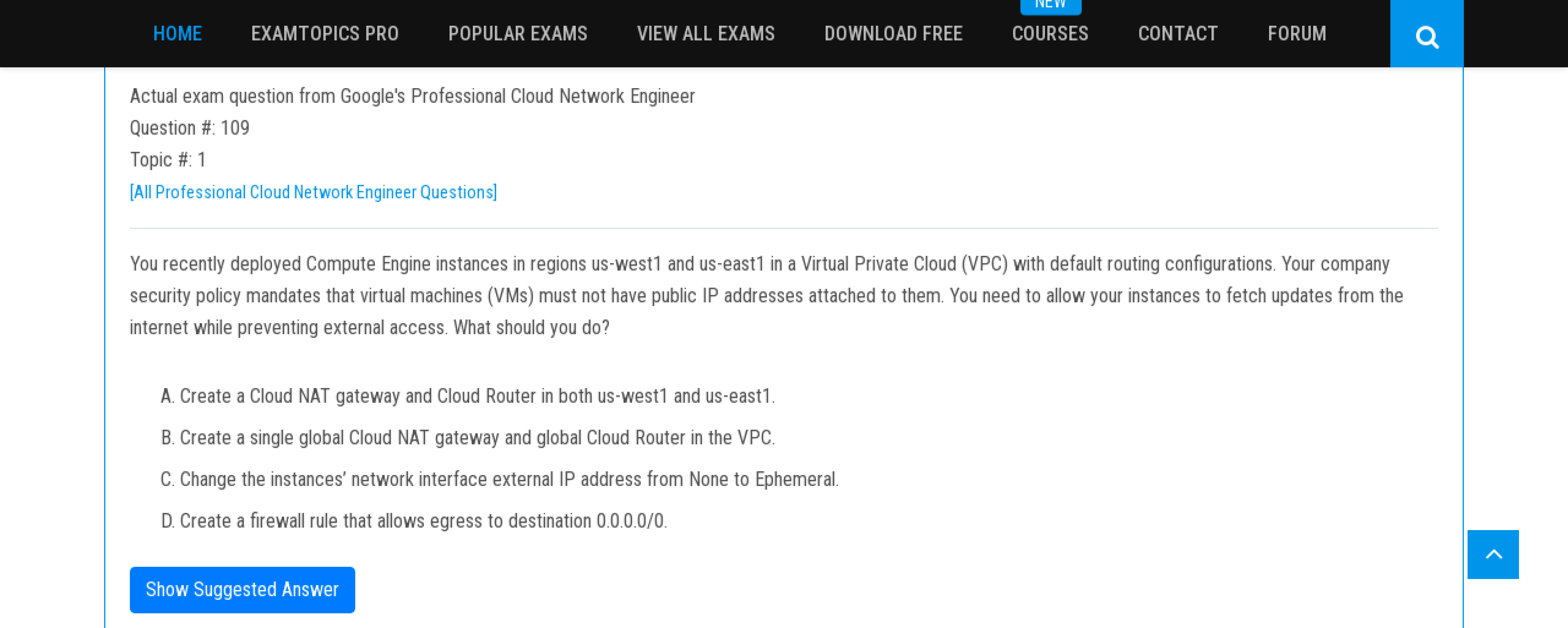
A. Set up the engineer with Compute Shared VPC Admin IAM role at the folder level.

B. Set up the engineer with Compute Shared VPC Admin IAM role at the organization level.

C. Set up the engineer with Compute Shared VPC Admin IAM role and Project IAM Admin role at the folder level.

D. Set up the engineer with Compute Shared VPC Admin IAM role and Project IAM Admin role at the organization level.

Show Suggested Answer



Actual exam question from Google's Professional Cloud Network Engineer
Question #: 109
Topic #: 1

[All Professional Cloud Network Engineer Questions]

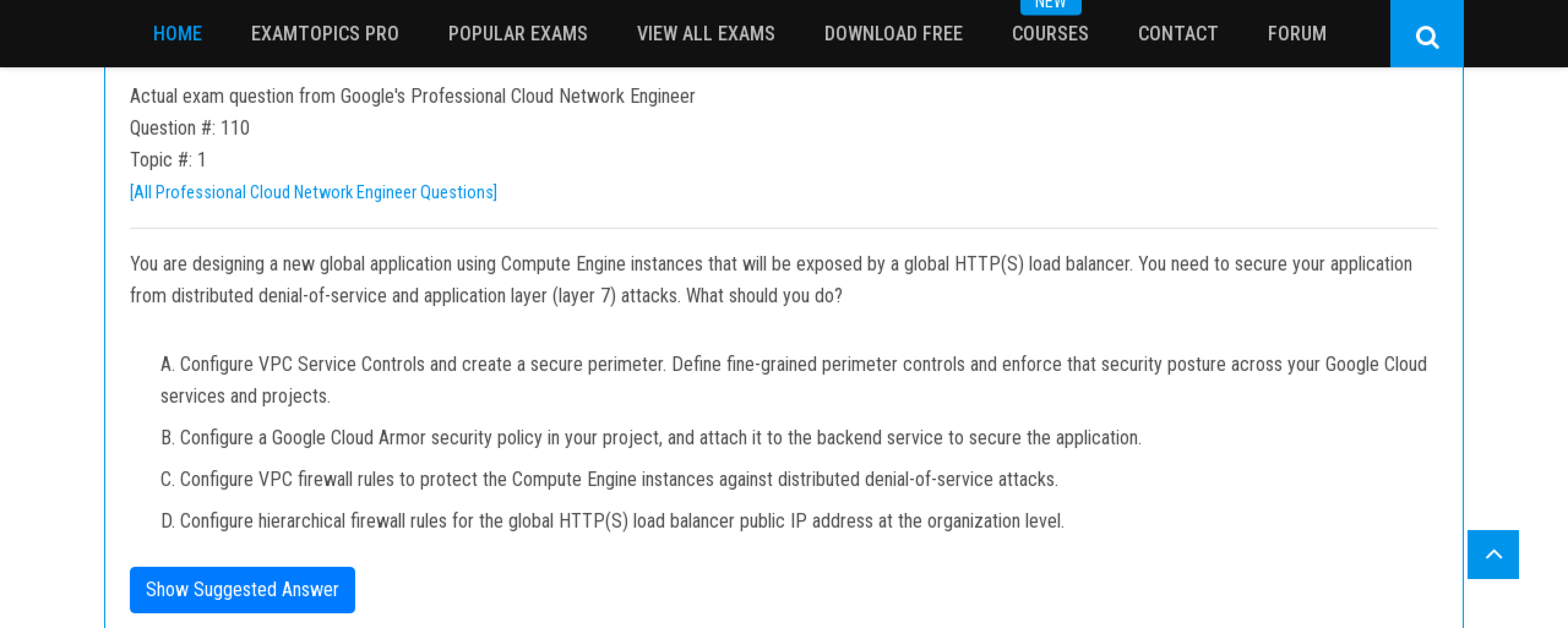
You recently deployed Compute Engine instances in regions us-west1 and us-east1 in a Virtual Private Cloud (VPC) with default routing configurations. Your company security policy mandates that virtual machines (VMs) must not have public IP addresses attached to them. You need to allow your instances to fetch updates from the internet while preventing external access. What should you do?

A. Create a Cloud NAT gateway and Cloud Router in both us-west1 and us-east1.

B. Create a single global Cloud NAT gateway and global Cloud Router in the VPC.

C. Change the instances' network interface external IP address from None to Ephemeral.

D. Create a firewall rule that allows egress to destination 0.0.0.0/0.



Actual exam question from Google's Professional Cloud Network Engineer
Question #: 110
Topic #: 1

[All Professional Cloud Network Engineer Questions]

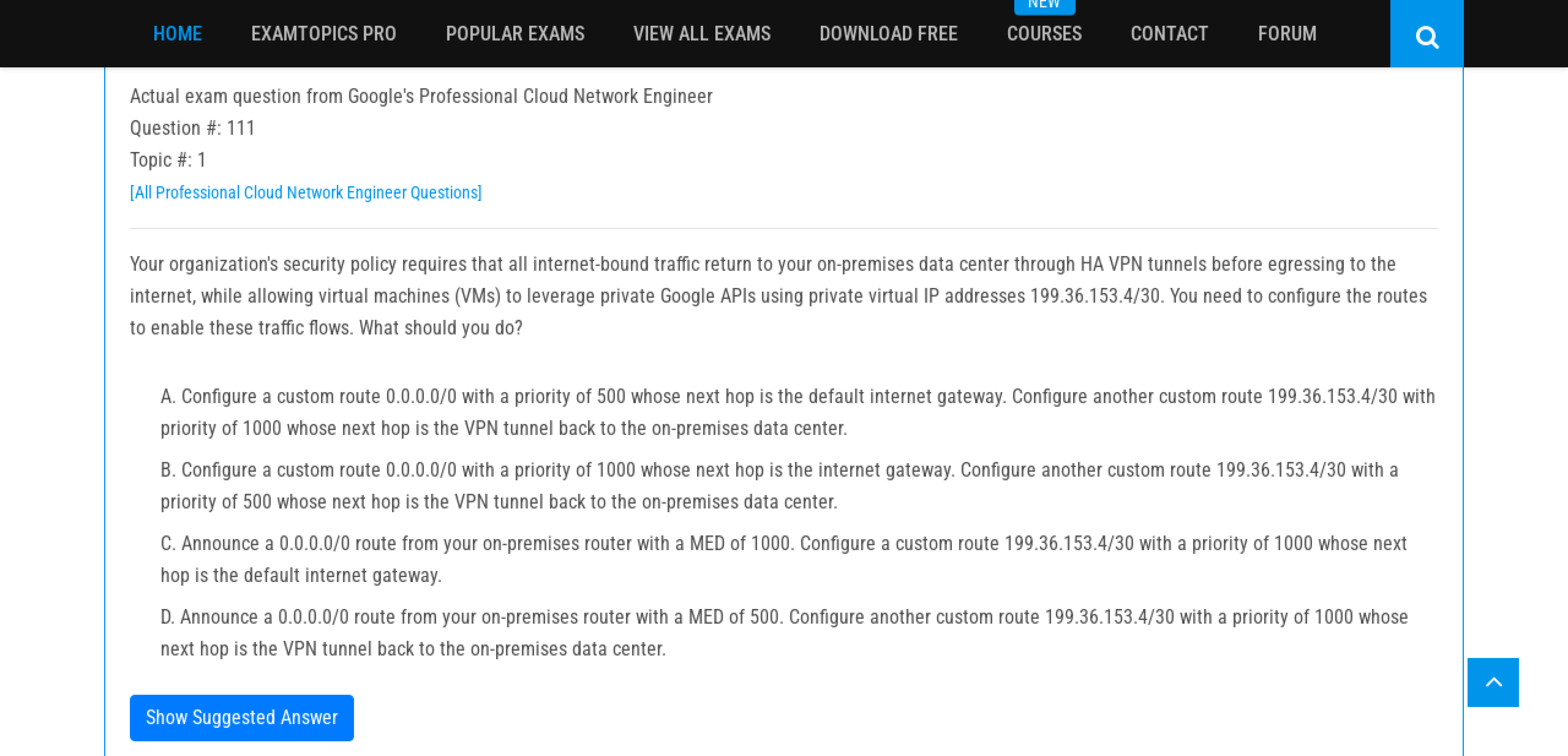
You are designing a new global application using Compute Engine instances that will be exposed by a global HTTP(S) load balancer. You need to secure your application from distributed denial-of-service and application layer (layer 7) attacks. What should you do?

A. Configure VPC Service Controls and create a secure perimeter. Define fine-grained perimeter controls and enforce that security posture across your Google Cloud services and projects.

B. Configure a Google Cloud Armor security policy in your project, and attach it to the backend service to secure the application.

C. Configure VPC firewall rules to protect the Compute Engine instances against distributed denial-of-service attacks.

D. Configure hierarchical firewall rules for the global HTTP(S) load balancer public IP address at the organization level.



Actual exam question from Google's Professional Cloud Network Engineer

Question #: 111

Topic #: 1

[All Professional Cloud Network Engineer Questions]

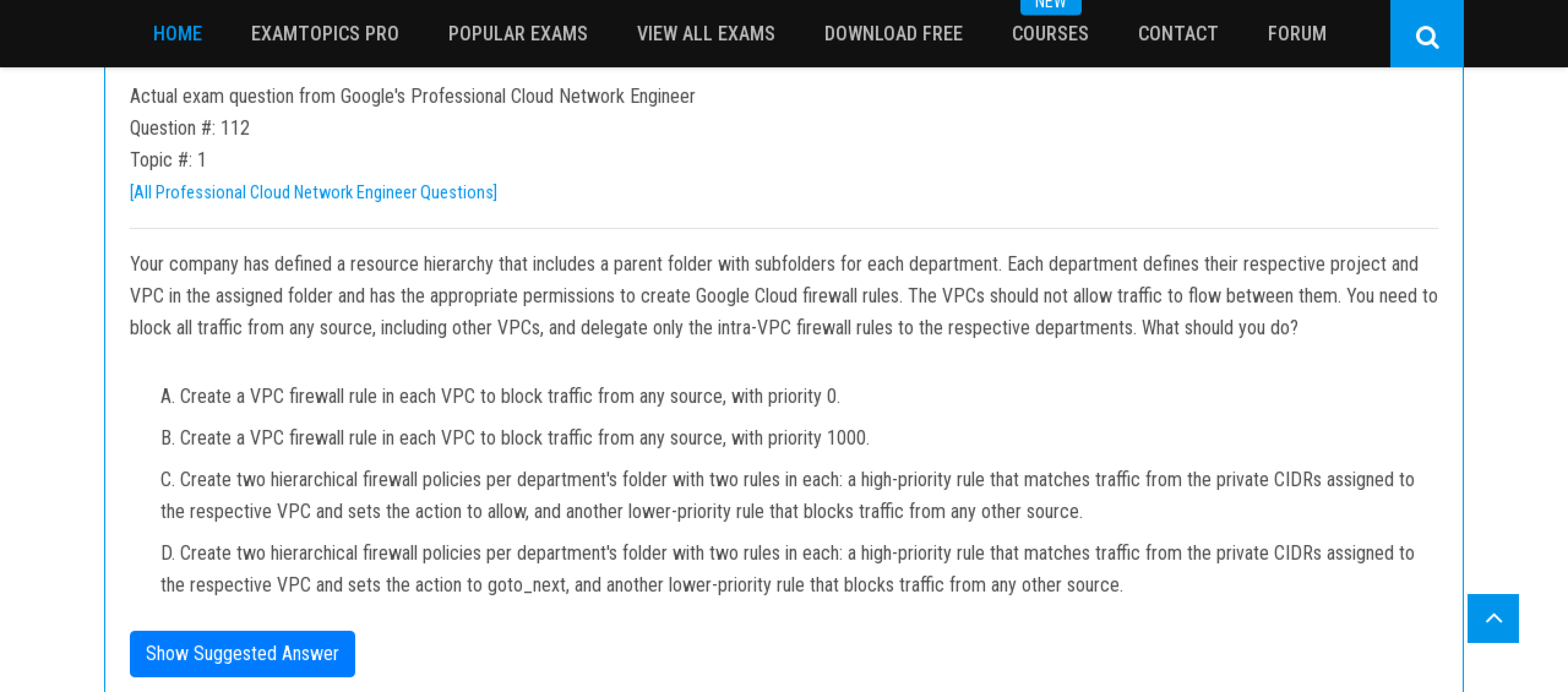
Your organization's security policy requires that all internet-bound traffic return to your on-premises data center through HA VPN tunnels before egressing to the internet, while allowing virtual machines (VMs) to leverage private Google APIs using private virtual IP addresses 199.36.153.4/30. You need to configure the routes to enable these traffic flows. What should you do?

A. Configure a custom route 0.0.0.0/0 with a priority of 500 whose next hop is the default internet gateway. Configure another custom route 199.36.153.4/30 with priority of 1000 whose next hop is the VPN tunnel back to the on-premises data center.

B. Configure a custom route 0.0.0.0/0 with a priority of 1000 whose next hop is the internet gateway. Configure another custom route 199.36.153.4/30 with a priority of 500 whose next hop is the VPN tunnel back to the on-premises data center.

C. Announce a 0.0.0.0/0 route from your on-premises router with a MED of 1000. Configure a custom route 199.36.153.4/30 with a priority of 1000 whose next hop is the default internet gateway.

D. Announce a 0.0.0.0/0 route from your on-premises router with a MED of 500. Configure another custom route 199.36.153.4/30 with a priority of 1000 whose next hop is the VPN tunnel back to the on-premises data center.



Actual exam question from Google's Professional Cloud Network Engineer
Question #: 112
Topic #: 1
[All Professional Cloud Network Engineer Questions]

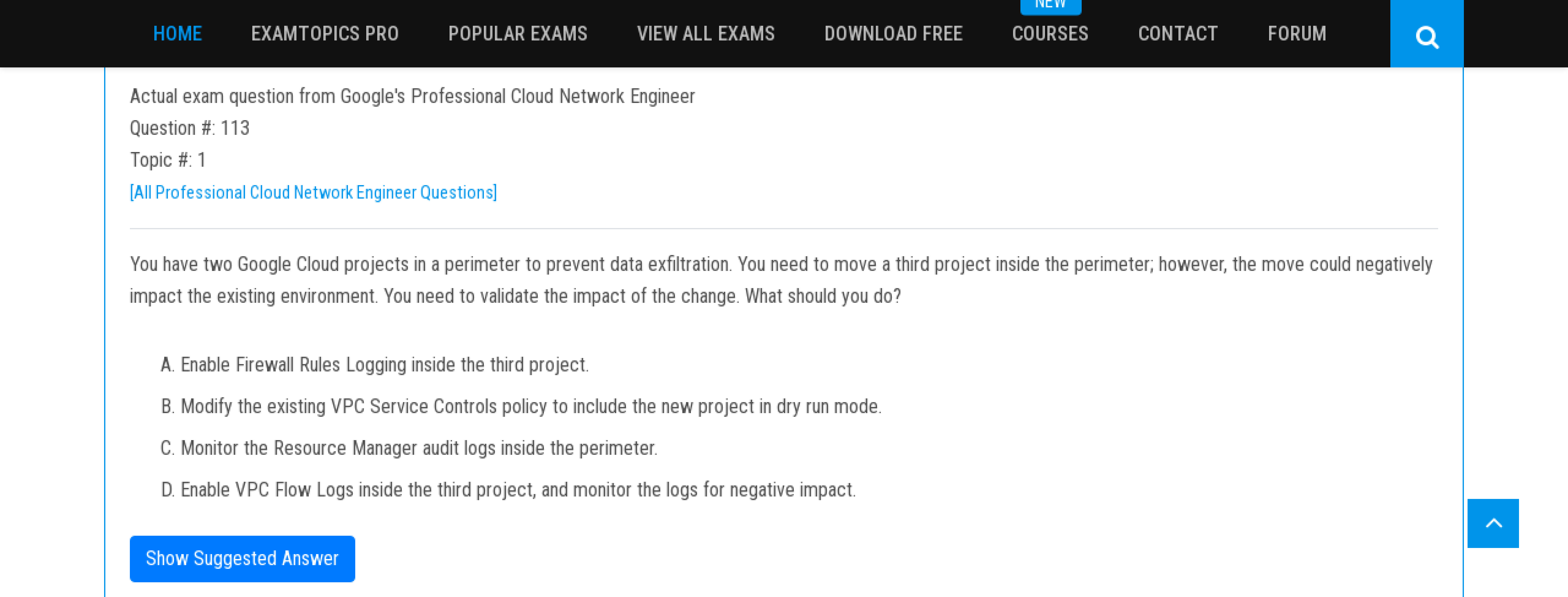
Your company has defined a resource hierarchy that includes a parent folder with subfolders for each department. Each department defines their respective project and VPC in the assigned folder and has the appropriate permissions to create Google Cloud firewall rules. The VPCs should not allow traffic to flow between them. You need to block all traffic from any source, including other VPCs, and delegate only the intra-VPC firewall rules to the respective departments. What should you do?

A. Create a VPC firewall rule in each VPC to block traffic from any source, with priority 0.

B. Create a VPC firewall rule in each VPC to block traffic from any source, with priority 1000.

C. Create two hierarchical firewall policies per department's folder with two rules in each: a high-priority rule that matches traffic from the private CIDRs assigned to the respective VPC and sets the action to allow, and another lower-priority rule that blocks traffic from any other source.

D. Create two hierarchical firewall policies per department's folder with two rules in each: a high-priority rule that matches traffic from the private CIDRs assigned to the respective VPC and sets the action to goto_next, and another lower-priority rule that blocks traffic from any other source.



Actual exam question from Google's Professional Cloud Network Engineer
Question #: 113
Topic #: 1
[All Professional Cloud Network Engineer Questions]

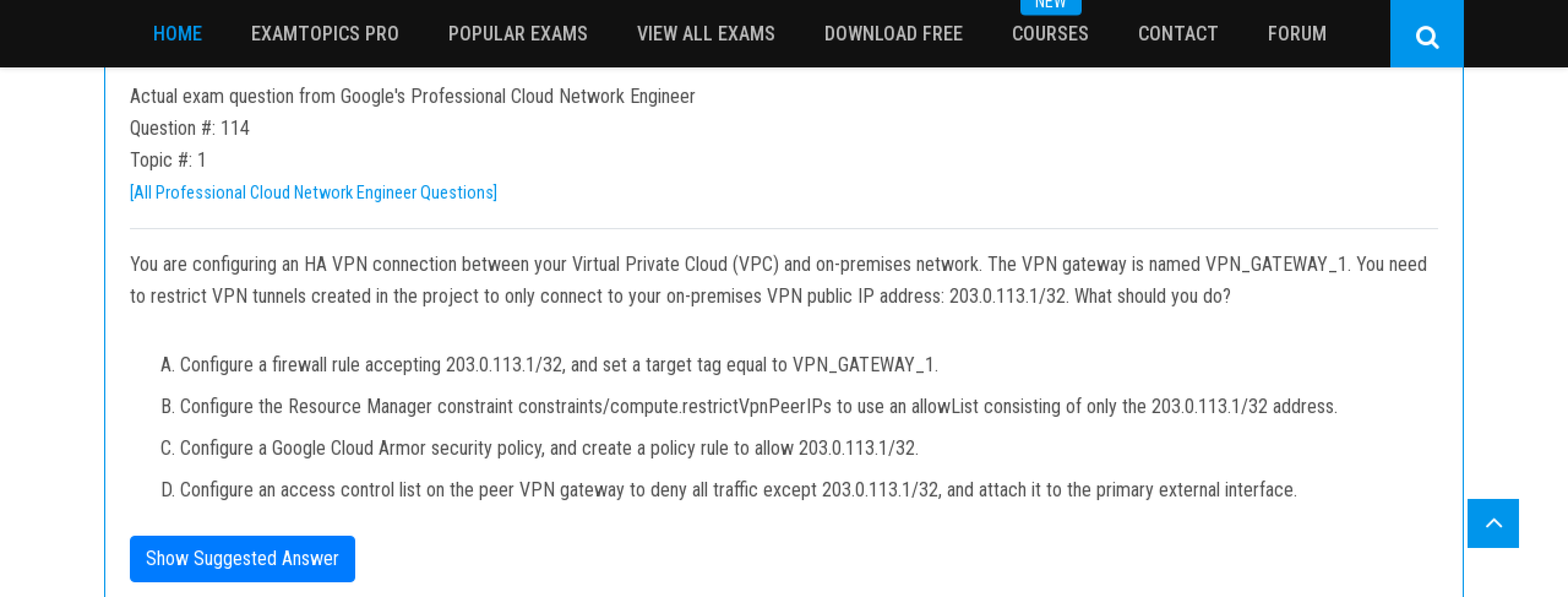
You have two Google Cloud projects in a perimeter to prevent data exfiltration. You need to move a third project inside the perimeter; however, the move could negatively impact the existing environment. You need to validate the impact of the change. What should you do?

A. Enable Firewall Rules Logging inside the third project.

B. Modify the existing VPC Service Controls policy to include the new project in dry run mode.

C. Monitor the Resource Manager audit logs inside the perimeter.

D. Enable VPC Flow Logs inside the third project, and monitor the logs for negative impact.



Actual exam question from Google's Professional Cloud Network Engineer
Question #: 114
Topic #: 1
[All Professional Cloud Network Engineer Questions]

You are configuring an HA VPN connection between your Virtual Private Cloud (VPC) and on-premises network. The VPN gateway is named VPN_GATEWAY_1. You need to restrict VPN tunnels created in the project to only connect to your on-premises VPN public IP address: 203.0.113.1/32. What should you do?

A. Configure a firewall rule accepting 203.0.113.1/32, and set a target tag equal to VPN_GATEWAY_1.

B. Configure the Resource Manager constraint constraints/compute.restrictVpnPeerIPs to use an allowList consisting of only the 203.0.113.1/32 address.

C. Configure a Google Cloud Armor security policy, and create a policy rule to allow 203.0.113.1/32.

D. Configure an access control list on the peer VPN gateway to deny all traffic except 203.0.113.1/32, and attach it to the primary external interface.