Google GCP-PCDE

GOOGLE PROFESSIONAL CLOUD DATABASE ENGINEER CERTIFICATION QUESTIONS & ANSWERS

Exam Summary – Syllabus – Questions

GCP-PCDE

Google Cloud Platform - Professional Cloud Database Engineer (GCP-PCDE)

50-60 Questions Exam – 70% Cut Score – Duration of 120 minutes

www.VMExam.com

Table of Contents

Know Your GCP-PCDE Certification Well:

The GCP-PCDE is best suitable for candidates who want to gain knowledge in the Google Professional. Before you start your GCP-PCDE preparation you may struggle to get all the crucial Professional Cloud Database Engineer materials like GCP-PCDE syllabus, sample questions, study guide.

But don't worry the GCP-PCDE PDF is here to help you prepare in a stress free manner.

The PDF is a combination of all your queries like-

- What is in the GCP-PCDE syllabus?
- How many questions are there in the GCP-PCDE exam?
- Which Practice test would help me to pass the GCP-PCDE exam at the first attempt?

Passing the GCP-PCDE exam makes you Google Cloud Platform - Professional Cloud Database Engineer (GCP-PCDE). Having the Professional Cloud Database Engineer certification opens multiple opportunities for you. You can grab a new job, get a higher salary or simply get recognition within your current organization.

Google GCP-PCDE Professional Cloud Database Engineer Certification Details:

Exam Name	Google Professional Cloud Database Engineer
Exam Code	Professional Cloud Database Engineer
Exam Price	$200 USD
Duration	120 minutes
Number of Questions	50-60
Passing Score	Pass / Fail (Approx 70%)
Recommended Training / Books	**Google Cloud documentation** **Google Cloud solutions**
Schedule Exam	**Google Cloud Webassessor**
Sample Questions	**Google GCP-PCDE Sample Questions**
Recommended Practice	**Google Cloud Platform - Professional Cloud Database Engineer (GCP-PCDE) Practice Test**

GCP-PCDE Syllabus:

Section	Objectives
Design scalable and highly available cloud database solutions	
Analyze relevant variables to perform database capacity and usage planning. Activities include:	- Given a scenario, perform solution sizing based on current environment workload metrics and future requirements - Evaluate performance and cost tradeoffs of different database configurations (machine types, HDD versus SSD, etc.) - Size database compute and storage based on performance requirements
Evaluate database high availability and disaster recovery options given the requirements. Activities include:	- Evaluate tradeoffs between multi-region, region, and zonal database deployment strategies - Given a scenario, define maintenance windows and notifications based on application availability requirements - Plan database upgrades for Google Cloud-managed databases
Determine how applications will connect to the database. Activities include:	- Design scalable, highly available, and secure databases - Configure network and security (Cloud SQL Auth Proxy, CMEK, SSL certificates) - Justify the use of session pooler services - Assess auditing policies for managed services
Evaluate appropriate database solutions on Google Cloud. Activities include:	- Differentiate between managed and unmanaged database services (self-managed, bare metal, Google-managed databases and partner database offerings) - Distinguish between SQL and NoSQL business requirements (structured, semi-structured, unstructured) - Analyze the cost of running database solutions in Google Cloud (comparative analysis) - Assess application and database dependencies
Manage a solution that can span multiple database solutions	
Determine database connectivity and access management considerations. Activities include:	- Determine Identity and Access Management (IAM) policies for database connectivity and access control - Manage database users, including authentication and access
Configure database monitoring and troubleshooting	- Assess slow running queries and database locking and identify missing indexes - Monitor and investigate database vitals: RAM, CPU storage,

Section	Objectives
options. Activities include:	I/O, Cloud Logging - Monitor and update quotas - Investigate database resource contention - Set up alerts for errors and performance metrics
Design database backup and recovery solutions. Activities include:	- Given SLAs and SLOs, recommend backup and recovery options (automatic scheduled backups) - Configure export and import data for databases - Design for recovery time objective (RTO) and recovery point objective (RPO)
Optimize database cost and performance in Google Cloud. Activities include:	- Assess options for scaling up and scaling out. - Scale database instances based on current and upcoming workload - Define replication strategies - Continuously assess and optimize the cost of running a database solution
Determine solutions to automate database tasks. Activities include:	- Perform database maintenance - Assess table fragmentation - Schedule database exports
Migrate data solutions	
Design and implement data migration and replication. Activities include:	- Develop and execute migration strategies and plans, including zero downtime, near-zero downtime, extended outage, and fallback plans - Reverse replication from Google Cloud to source - Plan and perform database migration, including fallback plans and schema conversion - Determine the correct database migration tools for a given scenario
Deploy scalable and highly available databases in Google Cloud	
Apply concepts to implement highly scalable and available databases in Google Cloud. Activities include:	- Provision high availability database solutions in Google Cloud - Test high availability and disaster recovery strategies periodically - Set up multi-regional replication for databases - Assess requirements for read replicas - Automate database instance provisioning

Google GCP-PCDE Sample Questions:

Question: 1

Analysts in your company have raised concerns about performance and failed queries from the most recent Thursday to Monday. You look at the logs on Tuesday and discover nearly 50 "deadlock detected" errors.

In the future, you want to take a more proactive approach to discovering database issues. What should you do?

a) Export the logs daily to BigQuery, and run a search for "deadlock detected" on the data.
b) Create a Cloud Monitoring metric with "deadlock detected" as the text payload, and set notifications based on it.
c) Create a Cloud Monitoring dashboard, and watch for any issues related to congestion that could indicate a deadlock.
d) Write a Cloud Function to poll the database logs for "deadlock detected" errors, and schedule the Cloud Function to run every hour on Cloud Scheduler.

Answer: b

Question: 2

You have a Cloud SQL instance serving production workloads. Previously, your customers have noticed non-availability issues during maintenance events. You want to minimize the impact of such maintenance issues in the future. What should you do ?

(Choose two)

a) Use connection pools.
b) Use exponential backoff.
c) Set the order of update to Later.
d) Remove the maintenance window.
e) Opt in to maintenance notifications.

Answer: a, b

Question: 3

Approximately 5 TB of data is collected daily in Amazon Simple Storage Service (S3). You want to transfer the data daily into Cloud Storage before importing the data into Cloud SQL. You need a reliable solution that takes minimal effort. What should you do?

a) Configure Storage Transfer Service to perform recurring transfers.
b) Configure Cloud Scheduler to run a gsutil job daily to copy the data.
c) Download the data to a local machine, and then use Transfer Appliance.
d) Configure Cloud Scheduler to run a Cloud Function daily to copy the data.

Answer: a

Question: 4

You are creating an application that uses a Cloud SQL database in the backend. The database is installed in a single zone. You need to design a reliable database architecture to ensure high availability (HA). What should you do?

a) Create two separate instances of the database in different regions, and write to each of them separately and simultaneously.
b) Create two separate instances of the database in different zones, and write to each of them separately and simultaneously.
c) Configure an instance for high availability, and fail over to the HA instance if there is a zonal failure.
d) Use Cloud Scheduler to create a new database instance in another zone from a backup if there is an instance failure.

Answer: c

Question: 5

You are building a mobile application that allows end users to upload images. These images need to go through a series of processing steps, including converting to black and white, cropping, and other editing. Your mobile application has a feature that allows end users to notify their followers when they edit images.

You want to create a scalable solution with minimal effort and cost. What should you do?

a) Use Firebase and Compute Engine.
b) Use Cloud Spanner and Cloud Run.
c) Use Bigtable and Cloud Functions for Firebase.
d) Use Firebase and Cloud Functions for Firebase.

Answer: d

Question: 6

Each developer and tester has an individual Cloud SQL instance for their own learning and experimenting use. The team works from Monday morning to Friday evening. You want to reduce expenditure on Cloud SQL instances with minimal effort. What should you do?

a) Configure high availability for the Cloud SQL instances, and then configure a maintenance window for the Cloud SQL instances.
b) Write a Cloud Function to start and stop the Cloud SQL instances, and use Cloud Scheduler to call the function as required.
c) Create a virtual machine (VM) on Compute Engine, and create a cron job to schedule the start and stop of the Cloud SQL instances.
d) Configure a read replica of each independent Cloud SQL instance, and then configure a maintenance window for the Cloud SQL instances.

Answer: b

Question: 7

You need to export a large Cloud SQL for PostgreSQL instance. The databases in the instance are used heavily in production, and export time is not a concern. You want to conduct the export operation without affecting the performance of the database. What should you do?

a) Use Datastream.
b) Use serverless export.
c) Use Database Migration Service.
d) Use Cloud SQL in high availability (HA) mode.

Answer: b

Question: 8

A Dedicated Interconnect connection exists between your on-premises network and a nearby Google Cloud region. A Bare Metal Solution for Oracle machine has been set up in another region. You want to use the Bare Metal machine's IP address to connect to the Oracle database. What should you do?

a) In your VPC network, set the dynamic routing mode to global.
b) In your VPC network, set the dynamic routing mode to regional.
c) In your VPC network, add a VPC peering connection between the two regions.
d) In your VPC network, add a high availability VPN connection between the two regions.

Answer: a

Question: 9

You migrated your on-premises MySQL instances to Cloud SQL on Google Cloud. The instances have been functioning as expected for the past six months. You need to optimize costs. What should you do?

a) Review past logs in Cloud Logging to plan virtual machine (VM) resources.
b) Apply the recommendations from the Cloud SQL overprovisioned recommender.
c) Use Query Insights to identify query performance and plan VM resources accordingly.
d) Review utilization on Cloud Monitoring dashboards to plan VM resources.

Answer: b

Question: 10

The security policy for a Cloud SQL database dictates that it should only be accessed from VPC networks within Google Cloud. You do not want to enable a public IP address for this instance. What should you do?

a) Configure your VPC with a firewall rule to allow the database's port.
b) Configure authorized networks CIDR with an internal subnet.
c) Configure your VPC with a firewall rule to allow HTTP(S).
d) Configure private services access in your VPC.

Answer: d

Study Guide to Crack Google Professional Cloud Database Engineer GCP-PCDE Exam:

- Getting details of the GCP-PCDE syllabus, is the first step of a study plan. This pdf is going to be of ultimate help. Completion of the syllabus is must to pass the GCP-PCDE exam.
- Making a schedule is vital. A structured method of preparation leads to success. A candidate must plan his schedule and follow it rigorously to attain success.
- Joining the Google provided training for GCP-PCDE exam could be of much help. If there is specific training for the exam, you can discover it from the link above.
- Read from the GCP-PCDE sample questions to gain your idea about the actual exam questions. In this PDF useful sample questions are provided to make your exam preparation easy.
- Practicing on GCP-PCDE practice tests is must. Continuous practice will make you an expert in all syllabus areas.