Google Cloud Professional Cloud Architect Quick Su

A fast 3-5 minute refresh of the design patterns and platform choices that appear most in PCA-style scenarios.

Best for rapid memory refresh	Focus managed vs self-managed, IAM, service fit, BCDR	Use with cheat sheet for fuller context

1. Architecture lens

Start with requirements	Map availability, latency, data residency, security, and budget to the service choice.
Prefer managed	Choose managed and serverless services first unless control requirements clearly push lower.
Minimize ops	The best answer often reduces toil without breaking the scenario.

2. Core services

Compute	Compute Engine, GKE, Cloud Run, App Engine each fit a different control vs speed trade-off.
Data	Cloud SQL, Spanner, Bigtable, Firestore, BigQuery solve different relational and scale patterns.
Storage	Cloud Storage is object; Filestore is NFS; Persistent Disk is VM block storage.

3. Governance and security

IAM	Use groups for users and service accounts for apps.
Org controls	Projects isolate work; folders and org policies enforce guardrails.
Protection	Use KMS, Secret Manager, audit logs, and private networking when requirements call for them.

4. Reliability and traps

Resilience	Think regional vs multi-region, health checks, backups, and failover testing.
Networking	Know when to use load balancer, Cloud CDN, VPN, Interconnect, and private service access.
Common exam traps	Cheapest is not always best; best answer balances fit, risk, and operational simplicity.