4 compute services :

**Compute engine -**

gives user maximum control for configuring and using vm .

Predeifned / custom machine type . advance security feature , shielded vm , sole tenancy .

**Kubernetes engine - open source platform**

Managed cluster , runs containerized application ,

**App engine - paas**

Google specific platform . minimal configuration required .

**Cloud functions**

Respond to event in gcp .

COMPUTE EMGINE IMPS TOPIC :

How to create instance in console and command line .

Advance feature eg : sole tenancy . shielded vm , gpu

Images and snapshot

Managed instance group and template

Cost structure

Gcloud compute command

Kubernetes:

Container orchestration

Single cluster master , multiple worker nodes

Pods deployment and services

When to use gcloud container vs kubectl .

How to view container registry images and details

App engine :

Understand application structure - services , version and instance

Deploying application characteristin with app.yaml

Scaling option

Splitting traffic

Cloud function :

Execute code in response to event

Event can be in

Cloud storage

Cloud pub sub

Http

Firebase

Stackdriver logging

Runtime currently include , python , node js , go

Object vs persistent disk vs managed db

Cloud storage - 4 type (regional , multiregional, nearline , coldline) , lifecycle policies , gsutil .

Persistent disk - used with vm , persist data even when vm is shut down making it usable for another vm .

Nosql for flexible schema data - datastore / firestore , bigtable

Relational for structured data - cloud sql up to 10 tb

Cloud spanner for global db

Bigquery - datawarehouse , bg utility .

Networking :

Purpose of VPC

VPC peering vs share VPC - when will we use each .

If VPC are in same organization us shared VPS else use Peering .

Hybrid cloud implementation : vpc ,, interconnect , peering

Ip address , cidr block , DNS , Firewall rule , LB , routes (dynamic routing - map for how traffic is routed from one end point ot another )