Q1.Steps to create VPC and subnet.

1. Go to the VPC networks page in the Google Cloud Console.
2. Click **Create VPC network**.
3. Enter a **Name** for the network.
4. Choose **Custom** for the **Subnet creation mode**.
5. In the **New subnet** section, specify the following configuration parameters for a subnet:
    a. Provide a **Name** for the subnet.
    b. Select a **Region**.
    c. Enter an **IP address range**. This is the primary IP range for the subnet.
    d. To define a secondary range for the subnet, click **Create secondary IP range**.Click **Done**.
6. To add more subnets, click **Add subnet** and repeat the previous steps. You can also add more subnets to the network after you have created the network.
7. Choose the **Dynamic routing mode** for the VPC network.
8. Click **Create**.

Q2 Steps to create a service account and add IAM roles which grants access to GCE and GCS only.

**steps:**

1. Create a new project in gcp.

2. Enable the APIs for the service account.

   In the top-left corner of the GCP console, click Menu >APIs & Services > Library.

   For each API you require (see below), click the API name and then Enable.

3. Create the service account.

   In the top-left corner of the GCP console, click Menu .

   Click IAM & Admin > Service accounts.

   Click Create Service Account and in the Service account name field, enter a name for the service account.

   (Optional) Enter a description of the service account.

   Click Create.

4. Open the **IAM & Admin** page in the Cloud Console.

   Click **Select a project**, choose a project, and click **Open**.

   Identify the service account to which you want to add a role.

   `Add role-storage.objectAdmin and compute.admin`

   `Click save.`

Q3 . Steps to create bucket and transfer files from local to GCS using gsutil

Ans:

1.Open google cloud sdk shell.

2.In your project write code.

To create a bucket- **gsutil mb gs://newBucket**

To transfer file from local to GCS- **gsutil cp [local-file-path] gs://newBucket**

Q4 . Steps to create GCE VM and deploy nginx.

1.go to GCP console.

2.under compute>vm instances>create instance.

3. Name the vm instance and select appropriate configuration .

4.click on create instance.

5.Open the cloud shell.

6.write - **sudo apt-get update** for updates.

7.to install nginx-**sudo apt-get install nginx**