**Sample Questions Set 2**

Q1. Why would you need Active Directory service in your Azure deployment? What service does AWS IAM provides? (2 points)

**Because Active Directory service lets you run Microsoft Active Directory(AD) as a managed service, which can reduce management tasks, thereby allowing you to focus more of your time and resources on your business.**

**AWS IAM allows you to create separate usernames and passwords for individual users or resources and delegate access.**

Q2. Explain how serverless computing can help organizations to cut cost in cloud deployments. Give an example of serverless computing service you have used in a public cloud environment. (3)

**Serverless computing provides the ability to purchase only the CPU cycles and memory needed to support an application using an event-based pay-per-use model. This allows teams to sidestep much of the cost and time associated with managing hardware, platforms, and operating systems on-premises, while also gaining the flexibility to scale rapidly and efficiently.**

**Example: AWS Lambda, Microsoft Azure Functions, Google Cloud Functions, Amazon S3**

Q3. “Cloud services more economical compared to traditional network infrastructures”. Provide two example scenarios when: (2)

1. The above statement is true

**Cloud service provides more storage space, but traditional network infrastructures provide less storage, if you run out of storage or processing power, then the only solution is to purchase or rent another server**

**Cloud service is ability to access data anywhere at any time by user, but for traditional network infrastructure, user can access data only on system in which data is stored.**

1. The above statement if false

**Cloud service requires fast, reliable and stable internet connection to access information anywhere at any time. For traditional network infrastructure, it does not require any internet connection to access data or information.**

Q4. You have setup your cloud infrastructure in such a way that (3)

1. the webserver server is in a public subnet where public IP is available,
2. the applications are on a private subnet having only private IP,
3. customers can connect to the application through the webserver and receive response.
4. However, the applications cannot initiate any connections to outside (e.g. to fetch system updates)

What service you need to install/enable in order to make sure the applications can update themselves?

**NET gateway**

Would you put that in the **public** or private subnet?

Q5. Please explain what the following command will do. In particular briefly mention the roles the options *-v -d* and *-p* are doing. (3)

docker run -d -v my-data-volume:/data --name my-redis-container -p 6379:6379 redis

**-d: run container in background and print container ID**

**-v: bind mount a volume**

**--name: assign a name to the container**

**-p: publish a container’s port to the host**

**Run the container(redis) with port 6379 and mounts the volume into the container.**