Cloud Networking

1.What is virtualization and virtualization type?

ANS: Virtualization is the process of creating virtual versions of computing resources such as servers, storage, or networks using software.

Types of Virtualization:

- Server Virtualization
- Storage Virtualization
- Network Virtualization
- Desktop Virtualization
- Application Virtualization

2.Type of hypervisor and how to manage it?

ANS: A **hypervisor** is software that creates and manages virtual machines.

Types:

- Type 1 (Bare-Metal): Runs directly on hardware (ESXi, Hyper-V)
- Type 2 (Hosted): Runs on an operating system (VMware Workstation)

Management:
Managed using **management tools**, dashboards, or CLI provided by the hypervisor.

3.Roles of virtualization in cloud computing?

ANS:

- Resource sharing
- Scalability
- Cost reduction
- Isolation of workloads
- High availability and disaster recovery

4.What is container?

ANS: A **container** is a lightweight virtualization method that packages an application and its dependencies together, sharing the host OS kernel.

Example: Docker

5.What is high availability and live migration in virtualization?

ANS:

- **High Availability (HA):** Ensures VMs continue running even if a server fails
- **Live Migration:** Moving a running VM from one host to another without downtime

6.Storage configuration –describe block storage, file storage and object storage---DAS NAS and SAN

ANS:

- **Block Storage:** Data stored in blocks (used in SAN)
- **File Storage:** Data stored as files and folders (used in NAS)
- **Object Storage:** Data stored as objects with metadata (used in cloud)

Storage Types:

- **DAS:** Direct-attached storage
- **NAS:** Network-attached storage
- **SAN:** Storage area network

7.Describe storage allocation and provisioning. Storage Allocation

ANS:

Storage Allocation: Assigning storage space to systems or applications.

Provisioning: Process of creating, configuring, and assigning storage resources to users or VMs as needed.