

Module -1

1- What is cloud computing?

Ans- Cloud computing is the delivery of computing services—like servers, storage, databases, networking, software—over the internet (“the cloud”) on a pay-as-you-go basis.

It allows users to access and use resources anytime, anywhere without owning physical hardware.

2-Describe cloud computing deploy model.

Ans- **Public Cloud:**

Services offered over the internet by third-party providers, shared among multiple users (e.g., AWS, Azure).

Private Cloud:

Cloud infrastructure used exclusively by one organization, either on-premises or hosted.

Hybrid Cloud:

Combination of public and private clouds, allowing data and apps to be shared between them.

Community Cloud:

Shared infrastructure for a specific community or organization with common concerns (e.g., security, compliance).

3-What are components of cloud computing?

Ans- **Infrastructure as a Service (IaaS):**

Virtualized computing resources like servers, storage, and networks.

Platform as a Service (PaaS):

Tools and platforms to develop, test, and deploy applications.

Software as a Service (SaaS):

Ready-to-use applications accessed over the internet.

Cloud Storage:

Scalable data storage accessible online.

❓ **Cloud Networking:**

Virtual networks and connectivity in the cloud.

4-cloud computing advantage and disadvantage Advantages of Cloud Computing

- **Ans- Cost Savings:** Pay only for what you use, no upfront hardware costs.
- **Scalability:** Easily scale resources up or down as needed.
- **Accessibility:** Access services from anywhere with internet.
- **Reliability:** Data backup and disaster recovery are easier.
- **Automatic Updates:** Cloud providers handle maintenance and updates.

Disadvantages of Cloud Computing (in short):

- **Security Risks:** Data stored off-site can be vulnerable.
- **Dependence on Internet:** Requires reliable internet connection.
- **Limited Control:** Less control over infrastructure and data.
- **Potential Downtime:** Service outages can impact availability.

Cloud computing offers flexibility and cost benefits but requires careful security and connectivity