

Cloud Computing – Module 1 (Point-Wise Answers)

1. What is Cloud Computing?

- Cloud computing delivers computing services (servers, storage, databases, networking, software) over the internet.
- It enables on-demand access to shared resources without local infrastructure.
- Offers flexibility, scalability, and cost savings compared to traditional on-premises systems.

2. Cloud Computing Deployment Models

- Public Cloud – Services offered to the public via the internet (e.g., AWS, Azure, Google Cloud).
- Private Cloud – Dedicated infrastructure for a single organization with enhanced control and security.
- Hybrid Cloud – Mix of public and private clouds for flexible data and app management.
- Community Cloud – Shared by several organizations with similar needs like compliance or security.

3. Components of Cloud Computing

- Client Infrastructure – Devices and interfaces for cloud access.
- Application – Software and services delivered through the cloud.
- Platform – Development and runtime environment.
- Infrastructure – Servers, storage, and network resources.
- Storage – Scalable data storage systems.
- Security & Management – Policies and tools for protection and efficient use of resources.

4. Advantages of Cloud Computing

- Cost Efficiency – No heavy upfront investment.
- Scalability – Resources can scale with demand.
- Accessibility – Data/apps accessible anywhere with internet.
- Reliability – Built-in backup, disaster recovery, and high availability.
- Automatic Updates – Providers handle updates and maintenance.

Disadvantages of Cloud Computing

- Downtime – Service interruptions may occur.
- Security Risks – Data stored off-site faces privacy concerns.

- Limited Control – Users have less control over infrastructure.
- Ongoing Costs – Subscription/usage fees can accumulate.