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PART - A

1. Cloud computing :

In cloud computing, the client does not have to buy the resources and manage them. Instead, the provider provides the resources as a Service which is much cheaper.

Essential characteristics :

- * On demand self services
- * Resource pooling
- * Measured service

2. Infrastructure as a Service (IaaS): resources

- * Virtual machines
- * In memory (RAM) storage
- * Disk storage
- * Network devices

3. Resource consolidation and Virtualization :

- * It reduces network traffic.
- * It allocates resources more efficiently
- * Reduces maintenance costs
- * Scaling of applications is easier

4. Hypervisor :

It is a virtualization software used to divide and allocate the resources on various pieces of hardware.

- * It separates the host hardware from the guest user
- * Resources are divided efficiently.
- * Allows for multiple guest OSes

5. Core components of cloud computing:

- * Cloud Infrastructure
- * Storage
- * Security
- * Management
- * Internet
- * Application
- * Client Infrastructure

6. Public cloud challenges:

- * Controlling Costs
- * Data privacy and security
- * Resource protection
- * Compliance

7. Private cloud challenges

- * Huge investment
- * IT reluctance

7. Microsoft Azure Security services

- * Azure Active Directory
- * Azure Key vault
- * Azure Security center

8. Solution for data security:

- * Adequate use of encryption
- * Attribute - Based encryption
- * Anonymization of data

9. Cloud Migration Factors :

- * Business goals
- * Security
- * Compliance
- * Cost and ROI
- * Disaster Recovery

10. Workload Migration can be time consuming:

Executing a cloud strategy can be time consuming. And ~~more~~ many applications have to be modernized to get them migrated which again consumes time and money.