1) What is AWS?

-> AWS is public cloud provider, who provides infrastructure as a service.

2) What is Cloud Computing?

→ Instead of doing computing on local machine /on premises we will be now doing computing on Remote location (cloud) that is called Cloud Computing.

3) Deployment models of cloud?

=>In cloud deployment models identifies the specific type of cloud environment based on ownership, scale and access as well as cloud's nature and purpose.

➢ **Types of Deployment Models**

1) public cloud
2) private cloud
3) Hybrid Cloud
4) Community Cloud
5) Multi – Cloud

1) Public Cloud: -

→ -The services which are accessed by everyone like AWS, Azure, GGP.

-Public cloud less secure as it is open to everyone.

2) Private Cloud: -

→ - The services which are accessed within the organization like Oracle

- It is suitable for storing corporate information to which only authorized staff has access.

3) Hybrid Cloud: -

→ - Hybrid cloud is a combination of private cloud and public cloud.

- Data is properly separated, so it reduces chances of data theft or attacked.

4) Community Cloud: -

→ - It is same as private cloud, but can be accessible from new organizations.

- It provides better security and cost effective.

5) Multi – Cloud: -

→ -You can mix and match the best features of each cloud providers services to suit that the demands

your apps, workloads and business by choosing different cloud providers.

> **Types of Cloud Service Models:**

1) Infrastructure as a Service (IAAS)

2) Platform as a Service (PAAS)

3) Software as a Service (SAAS)

4) Anything as a Service (AAS)

5) function as a Service (FAAS)

1) Infrastructure As A Service (IAAS) :-

-IAAS is also known as Hardware as a Service.

- It is computing infrastructure managed over the internet.

> **Characteristics of IAAS: -**

- Resources are available as a service.

- Services are highly scalable.

-Dynamic and flexible.

-GUI and API bused Access.

-Automated Administrative task..

Ex Aws, Microsoft Azure, GCP, Cisco meta cloud etc.

2) **Platform as a Service (PAAS) :-**

-PAAS Cloud Computing platform is created for the programmer to develop, test, Run, and manage the application.

> **Characteristics of PAAS:**

-Accessible to various users via the same development application.

-Integrated with web services, and databases.

-Supports multiple languages and frameworks.

Ex:- Aws Elastic Beanstalk, windows Azure, Google App Engine.

2) Software as a Service (SAAS) :-

 - SAAS is also known as "On-demand – Software.

 - It is software in which applications are hosted by a cloud service providers.

  -Users can access these applications with the help of internet connection and web browser.

➢ **Characteristics of SAAS:-**

- Manage from central location.

- Hosted on a remote server

- Accessible over the internet.

-Users are not responsible for hardware and software updates are applied automatically.

-The services are purchased on the pay- as – per use basis.

Ex:- Google Apps, Sale force, Drop Box, Cisco Web, Go to meeting.

• **Essential characteristics of cloud Computing**

- As per National Institute of standards Technology (NIST)

1) On demand Self-Service

2) Brood Network Access

3) Resource pooling

4) Rapid Elasticity

5) Measured Services.

4)What is Service?

-> - A system or organization that provides the public with something that it needs; the

Job Organization does.

5)What is client?

-> Who request for the resources is called Client.

6)What is Server?

-> Who response to the resource of client is called server.

7)What is Firewall?

- Which stops unauthorized access to the network allow / Deny.

8) What is Region?

-Region is a place where AWS has its Infrastructure.

- Regions is geographical Area.

-A region has multiple Availability Zones

-Regions don't communicate with such others by default if required yes.

9) What is Availability zone?

-> Availability zone means simply a data centers.

Ex - AWS Region – Mumbai.

- AP - South - 1

Mumbai AZ's → 1) AP-south-1a.

                     2)AP - south – 1b.

                      3) AP - south – 1c

Az's can communicate with each other by others.

10) What is Elasticity?

→ Increasing and decreasing the capacity of to meet increasing or decreasing workloads is called elasticity.

-Elasticity can be achieved in Aws Using Auto Scaling.

-Elasticity is also called Horizontal Scaling.

11)What is Auto Scaling?

-> Scale out (Adding services-increasing) and Scale in (Removing Services -decreasing).

12)What is High Availability?

-> The period of time the server is available to the customers is called High Availability.

13)What is Elastic Bean Stark?

- Easy and quick deployment of application In Aws is called Elastic Bean Stalk.

➢ OSI Layers (Open System Interconnection)

 1)Application Layer

2) Presentation Layer

3) Session Layer

4)Transport Layer

5) Network Layer

6) Date link Layer

7) Physical Layer

14) What is Edge location?

- Edge location is temporary cache location.

- A site the CloudFront uses to cache copies of your content for faster delivery to users at any location.

15) What is Web server?

-Web Server is which takes Request and Redirect to the application server.

16) What is Application Server?

→ The server which has application hosted Application Server.

17) What is Database Server?

- The server which has database installed.

- The Server which stores data.

18) What is load Balancer?

- Which distribute the traffic across multiple servers is called Load Balancer.

- Types of cache	- Types of cookies
→ Proxy cache → Brower cache -	→ Persistant cookies → Transient cookies