1) Explain what AWS is?

AWS stands for Amazon Web Service; it is a collection of remote computing services also known as a cloud computing platform. This new realm of cloud computing is also known as IaaS or Infrastructure as a Service.

2) Mention what the key components of AWS are?

The key components of AWS are

Route 53: A DNS web service

Simple E-mail Service: It allows sending e-mail using RESTFUL API call or via regular SMTP

Identity and Access Management: It provides enhanced security and identity management for your AWS account

Simple Storage Device or (S3): It is a storage device and the most widely used AWS service

Elastic Compute Cloud (EC2): It provides on-demand computing resources for hosting applications. It is handy in case of unpredictable workloads

Elastic Block Store (EBS): It offers persistent storage volumes that attach to EC2 to allow you to persist data past the lifespan of a single Amazon EC2 instance

CloudWatch: To monitor AWS resources, It allows administrators to view and collect key Also, one can set a notification alarm in case of trouble.

3) Explain what S3 is?

S3 stands for Simple Storage Service. You can use S3 interface to store and retrieve any amount of data, at any time and from anywhere on the web. For S3, the payment model is "pay as you go."

7) Mention what the difference between Amazon S3 and EC2 is?

The difference between EC2 and Amazon S3 is that

EC2	S3
It is a cloud web service used for hosting your application	It is a data storage system where any amount of data can be stored
It is like a huge computer machine which can run either Linux or Windows and can handle application like PHP, Python, Apache or any databases	It has a REST interface and uses secure HMACSHA1 authentication keys

8) Explain can you vertically scale an Amazon instance? How?

Yes, you can vertically scale on Amazon instance. For that
Spin up a new larger instance than the one you are currently running
Pause that instance and detach the root webs volume from the server and discard
Then stop your live instance and detach its root volume

what T2 instances is?

T2 instances are designed to provide moderate baseline performance and the capability to burst to higher performance as required by the workload.

10) In VPC with private and public subnets, database servers should ideally be launched into which subnet?

With private and public subnets in VPC, database servers should ideally launch into private subnets.

11) Mention what the security best practices for Amazon EC2 are?

For secure Amazon EC2 best practices, follow the following steps

\# Use AWS identity and access management to control access to your AWS resources
\# Restrict access by allowing only trusted hosts or networks to access ports on your instance
\# Review the rules in your security groups regularly
\# Only open up permissions that you require
\# Disable password-based login, for example, launched from your AMI

12) What are key-pairs in AWS?

Key-pairs are secure login information for your virtual machines. To connect to the instances, you can use key-pairs which contain a public-key and private-key.

13) Route Table

A routing table is a logical construct within an amazon VPC that contains a set of rules(Called Routes) that area applied to the subnet and used to determine where network traffic is directed.

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14) Internet Gateway

An Internet Gateway is a horizontally scalled and highly available Amazon VPC component that allo communication between instances in your Amazon VPC and the Internet.

15) NAT Gateway

ANAT gateway is an Amazon-managed resource that is designed to operate just like a NAT instance.i It is simpler to manage and highly available within an Availability Zone.

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16) What is VPC?

    VPC stands for Virtual Private Cloud. It allows you to customize your networking configuration. It is a network which is logically isolated from another network in the cloud. It allows you to have your IP address range, internet gateways, subnet and security groups.

17) What are the advantages of auto-scaling?

    Following are the advantages of autoscaling
    # Better availability
    # Better cost management

18) What is meant by subnet?

    A large section of IP Address divided into chunks is known as subnets.

19) How many subnets can you have per VPC?

    You can have 200 subnets per VPC

20) DNS and Load Balancer service comes under which type of cloud service?

    DNS and Load Balancer and DNS services come under IAAS-storage cloud service.

21) When EC2 officially launched?

EC2 officially launched in the year 2006.

22) How to connect EBS volume to multiple instances?

We can't be able to connect EBS volume to multiple instances. Although, you can connect various EBS Volumes to a single instance.

23) List different types of cloud services

Various types of cloud services are:

Software as a Service (SaaS),
Platform as a Service (PaaS)
Infrastructure as a Service (IaaS).

24) State the difference between An Instance and AMI

AMI is a template consisting software configuration part. For example Operating systems, applications, application server if you start an instance, a duplicate of the AMI in a row as an attendant in the cloud.