**✅ Core AWS Concepts**

1. What is AWS, and what are its main services?
2. Explain the difference between **EC2** and **Lambda**.
3. What is an **Availability Zone (AZ)** and **Region** in AWS?
4. How does **Auto Scaling** work?
5. What is the difference between **vertical** and **horizontal scaling**?
6. Explain **IAM roles, users, and policies**.
7. How does **Elastic Load Balancer (ELB)** work?
8. What types of storage does AWS provide?
9. Compare **S3**, **EBS**, and **EFS**.

**☁️ Design & Architecture**

1. How would you design a **highly available** architecture on AWS?
2. What is a **VPC**, and what components are within it?
3. What are **subnets**? Why would you use public vs. private subnets?
4. How do you set up **multi-tier architecture** in AWS?
5. How do you ensure **fault tolerance** in your design?
6. What is a **bastion host**, and when do you use one?
7. Explain **NAT Gateway** vs **Internet Gateway**.
8. What are **placement groups**, and when should you use them?
9. How can you improve application performance on AWS?
10. How do you design for **cost optimization**?

**🔐 Security & Identity**

1. What is the difference between **Security Groups** and **NACLs**?
2. What is IAM in AWS?
3. What are the key components of IAM?
4. Users, Groups, Roles, and Policies.
5. What is the difference between IAM users and IAM roles?
6. Explain JSON policy elements like Effect, Action, Resource, and Condition.
7. What is the default permission for a new IAM user?
8. Can IAM users access resources in other AWS accounts?
9. What are managed policies vs inline policies?

**🧠 Networking & Connectivity**

1. What is **VPC peering** and when would you use it?
2. Explain **Direct Connect** vs **VPN**.
3. How does **Route 53** provide DNS services and failover?
4. What are **VPC endpoints**?

**🪣 Amazon S3 (Simple Storage Service)**

1. What is Amazon S3 and its core use cases?
2. What are S3 storage classes and when would you use each?
3. How does versioning work in S3?
4. What are S3 lifecycle policies?
5. What’s the difference between bucket policy and IAM policy in S3?
6. How do you make an S3 bucket static website–enabled?

**🌐 Amazon CloudFront**

1. What is CloudFront and how does it improve performance?
2. What is the difference between CloudFront and Global Accelerator?
3. What are CloudFront edge locations?