**Terraform MCQs with Answers & Explanations – 15 questions**

**1. Which of the following is TRUE about Terraform?**

A. Terraform is a configuration management tool  
B. Terraform is an Infrastructure as Code (IaC) tool  
C. Terraform manages only AWS resources  
D. Terraform cannot perform provisioning

**Answer:** B  
**Explanation:** Terraform is an IaC tool that provisions and manages infrastructure across multiple providers (AWS, Azure, GCP, VMware, etc.). It is not limited to AWS, nor is it just configuration management like Ansible or Chef.

**2. Which command is used to create or update infrastructure in Terraform?**

A. terraform plan  
B. terraform init  
C. terraform apply  
D. terraform refresh

**Answer:** C  
**Explanation:** terraform apply applies the execution plan and creates/updates infrastructure. plan only shows changes, init initializes working directory, and refresh updates the state file.

**3. What is the purpose of the Terraform state file (terraform.tfstate)?**

A. Stores provider plugin binaries  
B. Keeps track of infrastructure deployed  
C. Contains only variable definitions  
D. Used only during terraform destroy

**Answer:** B  
**Explanation:** Terraform state (.tfstate) records the mapping between configuration and real-world resources, enabling Terraform to detect changes.

**4. What happens if the Terraform state file is accidentally deleted?**

A. Infrastructure is destroyed automatically  
B. Terraform re-creates all resources on the next apply  
C. Terraform loses track of resources but infrastructure still exists  
D. Nothing happens

**Answer:** C  
**Explanation:** Deleting state does not remove infrastructure but Terraform cannot manage existing resources anymore. Running apply may cause duplication unless you re-import resources.

**5. Which backend is commonly used for remote Terraform state management with team collaboration?**

A. Local backend  
B. S3 with DynamoDB locking  
C. GitHub repo  
D. Jenkins

**Answer:** B  
**Explanation:** S3 is widely used to store remote Terraform state, with DynamoDB providing state locking to prevent race conditions in team environments.

**6. Which command is used to move a resource from one state to another?**

A. terraform refresh  
B. terraform state mv  
C. terraform import  
D. terraform taint

**Answer:** B  
**Explanation:** terraform state mv allows moving items between states or changing resource addresses without recreating them.

**7. Which of the following is a best practice for managing Terraform state?**

A. Store .tfstate in GitHub repo  
B. Encrypt state files at rest and in transit  
C. Keep .tfstate only locally for team projects  
D. Share state via email

**Answer:** B  
**Explanation:** State files often contain sensitive data (like secrets), so encrypting them and using secure backends (S3, Azure Blob, GCS) is best practice.

**8. In Terraform, how can sensitive variables (like passwords) be marked?**

A. sensitive = true  
B. hidden = true  
C. encrypt = true  
D. mask = true

**Answer:** A  
**Explanation:** Terraform supports marking outputs/variables as sensitive = true, which hides their values in logs and CLI output.

**9. Which Terraform provider is commonly used for managing secrets in a secure vault?**

A. AWS IAM  
B. Azure AD  
C. HashiCorp Vault  
D. Terraform Registry

**Answer:** C  
**Explanation:** HashiCorp Vault provider integrates secrets management into Terraform workflows, allowing dynamic secrets and secure handling.

**10. What does the terraform import command do?**

A. Imports variables from another file  
B. Imports an existing resource into Terraform state  
C. Imports Terraform modules from registry  
D. Imports provider plugins

**Answer:** B  
**Explanation:** terraform import links an existing infrastructure resource into Terraform’s state without recreating it.

**11. Which command is used to safely remove a resource from state without destroying it?**

A. terraform destroy  
B. terraform state rm  
C. terraform plan -destroy  
D. terraform refresh

**Answer:** B  
**Explanation:** terraform state rm removes a resource from the state file while leaving the real-world resource untouched.

**12. In Terraform provisioning, which block is used for running remote-exec or local-exec commands?**

A. connection  
B. provisioner  
C. lifecycle  
D. backend

**Answer:** B  
**Explanation:** Terraform provisioner blocks (remote-exec, local-exec, file) are used to run commands or transfer files after resource creation.

**13. Which lifecycle meta-argument ensures that a resource is created before being destroyed during an update?**

A. prevent\_destroy  
B. ignore\_changes  
C. create\_before\_destroy  
D. depends\_on

**Answer:** C  
**Explanation:** create\_before\_destroy ensures replacement resources are provisioned before destroying old ones, avoiding downtime.

**14. Which Terraform feature helps manage reusable code for infrastructure components?**

A. Variables  
B. Providers  
C. Modules  
D. Workspaces

**Answer:** C  
**Explanation:** Terraform modules allow packaging and reusing infrastructure code across environments and projects.

**15. Which of the following is a recommended way to store Terraform secrets securely?**

A. Hardcode in .tf files  
B. Use environment variables or secret managers  
C. Keep them in terraform.tfvars without encryption  
D. Share secrets in team chat

**Answer:** B  
**Explanation:** Best practice is to store secrets in secret managers (Vault, AWS Secrets Manager, Azure Key Vault) or use environment variables—never hardcode them in .tf files.