Terraform Associate Certification

1.The terraform.tfstate file always matches your currently built infrastructure.

- A. True
- B. False

Ans : B

2.One remote backend configuration always maps to a single remote workspace.

- A. True

- B. False

Ans : B

3. How is the Terraform remote backend different than other state backends such as S3, Consul, etc.?

- A. It can execute Terraform runs on dedicated infrastructure on premises or in Terraform Cloud

- B. It doesn't show the output of a terraform apply locally

- C. It is only available to paying customers

- D. All of the above

Ans : A

4. What is the workflow for deploying new infrastructure with Terraform?

- A. terraform plan to import the current infrastructure to the state file, make code changes, and terraform apply to update the infrastructure.

- B. Write a Terraform configuration, run terraform show to view proposed changes, and terraform apply to create new infrastructure.

- C. terraform import to import the current infrastructure to the state file, make code changes, and terraform apply to update the infrastructure.

· D. Write a Terraform configuration, run terraform init, run terraform plan to view planned infrastructure changes, and terraform apply to create new infrastructure.

Ans : D

5. A provider configuration block is required in every Terraform configuration.

Example:

· A. True

· B. False

Ans : B

6. You run a local-exec provisioner in a null resource called null_resource.run_script and realize that you need to rerun the script.

Which of the following commands would you use first?

· A. terraform taint null_resource.run_script

· B. terraform apply -target=null_resource.run_script

· C. terraform validate null_resource.run_script

· D. terraform plan -target=null_resource.run_script

Ans : A

7. Which provisioner invokes a process on the resource created by Terraform?

· A. remote-exec

· B. null-exec

· C. local-exec

· D. file

Ans : A

8.Which of the following is not true of Terraform providers?

· A. Providers can be written by individuals

· B. Providers can be maintained by a community of users

· C. Some providers are maintained by HashiCorp

· D. Major cloud vendors and non-cloud vendors can write, maintain, or collaborate on Terraform providers

· E. None of the above

Ans : E

9. What command does Terraform require the first time you run it within a configuration directory?

· A. terraform import

· B. terraform init

· C. terraform plan

· D. terraform workspace

Ans : B

10. You have deployed a new webapp with a public IP address on a cloud provider. However, you did not create any outputs for your code.

What is the best method to quickly find the IP address of the resource you deployed?

· A. Run terraform output ip_address to view the result

· B. In a new folder, use the terraform_remote_state data source to load in the state file, then write an output for each resource that you find the state file

· C. Run terraform state list to find the name of the resource, then terraform state show to find the attributes including public IP address

· D. Run terraform destroy then terraform apply and look for the IP address in stdout

Ans : C

11. Which of the following is not a key principle of infrastructure as code?

     ·   A. Versioned infrastructure

     ·   B. Golden images

     ·   C. Idempotence

     ·   D. Self-describing infrastructure

Ans : B

12. Terraform variables and outputs that set the "description" argument will store that description in the state file.

     ·   A. True

     ·   B. False

Ans : B

13. What is the provider for this fictitious resource?

     ·   A. vpc

     ·   B. main

     ·   C. aws

     ·   D. test

Ans : C

14. If you manually destroy infrastructure, what is the best practice reflecting this change in Terraform?

     ·   A. Run terraform refresh

     ·   B. It will happen automatically

     ·   C. Manually update the state fire

· D. Run terraform import

Ans : A

15. What is not processed when running a terraform refresh?

· A. State file

· B. Configuration file

· C. Credentials

· D. Cloud provider

Ans : B

16. What information does the public Terraform Module Registry automatically expose about published modules?

· A. Required input variables

· B. Optional inputs variables and default values

· C. Outputs

· D. All of the above

· E. None of the above

Ans : D

17. If a module uses a local values, you can expose that value with a terraform output.

· A. True

· B. False

Ans : A

18. You should store secret data in the same version control repository as your Terraform configuration.

· A. True

·   B. False

Ans : B

19. Which of the following is not a valid string function in Terraform?

·   A. split

·   B. join

·   C. slice

·   D. chomp

Ans : C

20. You have provisioned some virtual machines (VMs) on Google Cloud Platform (GCP) using the gcloud command line tool. However, you are standardizing with

Terraform and want to manage these VMs using Terraform instead.

What are the two things you must do to achieve this? (Choose two.)

·   A. Provision new VMs using Terraform with the same VM names

·   B. Use the terraform import command for the existing VMs

·   C. Write Terraform configuration for the existing VMs

·   D. Run the terraform import-gcp command

Ans : BC

21. You have recently started a new job at a retailer as an engineer. As part of this new role, you have been tasked with evaluating multiple outages that occurred during peak shopping time during the holiday season. Your investigation found that the team is manually deploying new compute instances and configuring each compute instance manually. This has led to inconsistent configuration between each compute instance.

How would you solve this using infrastructure as code?

· A. Implement a ticketing workflow that makes engineers submit a ticket before manually provisioning and configuring a resource

· B. Implement a checklist that engineers can follow when configuring compute instances

· C. Replace the compute instance type with a larger version to reduce the number of required deployments

· D. Implement a provisioning pipeline that deploys infrastructure configurations committed to your version control system following code reviews

Ans : D

22. terraform init initializes a sample main.tf file in the current directory.

· A. True

· B. False

Ans : B

23. Which two steps are required to provision new infrastructure in the Terraform workflow? (Choose two.)

· A. Destroy

· B. Apply

· C. Import

· D. Init

· E. Validate

Ans : BD

24. Why would you use the terraform taint command?

· A. When you want to force Terraform to destroy a resource on the next apply

· B. When you want to force Terraform to destroy and recreate a resource on the next apply

· C. When you want Terraform to ignore a resource on the next apply

· D. When you want Terraform to destroy all the infrastructure in your workspace

Ans : B

25. Terraform requires the Go runtime as a prerequisite for installation.

· A. True

· B. False

Ans : False

26. When should you use the force-unlock command?

· A. You see a status message that you cannot acquire the lock

· B. You have a high priority change

· C. Automatic unlocking failed

· D. You apply failed due to a state lock

Ans : C

27. Terraform can import modules from a number of sources `" which of the following is not a valid source?

· A. FTP server

· B. GitHub repository

· C. Local path

· D. Terraform Module Registry

Ans : A

28. Which of the following is available only in Terraform Enterprise or Cloud workspaces and not in Terraform CLI?

· A. Secure variable storage

B. Support for multiple cloud providers

C. Dry runs with terraform plan

D. Using the workspace as a data source

Ans : A

29. terraform validate validates the syntax of Terraform files.

A. True

B. False

Ans : A

30.You have used Terraform to create an ephemeral development environment in the cloud and are now ready to destroy all the infrastructure described by your

Terraform configuration. To be safe, you would like to first see all the infrastructure that will be deleted by Terraform.

Which command should you use to show all of the resources that will be deleted? (Choose two.)

A. Run terraform plan -destroy.

B. This is not possible. You can only show resources that will be created.

C. Run terraform state rm *.

D. Run terraform destroy and it will first output all the resources that will be deleted before prompting for approval.

Ans : AD

31. Which of the following is the correct way to pass the value in the variable num_servers into a module with the input servers?

A. servers = num_servers

B. servers = variable.num_servers

C. servers = var(num_servers)

·   D. servers = var.num_servers

Ans : D

32. A Terraform provisioner must be nested inside a resource configuration block.

·   A. True

·   B. False

Ans : A

33. Terraform can run on Windows or Linux, but it requires a Server version of the Windows operating system.

·   A. True

·   B. False

Ans : B

34. What does the default "local" Terraform backend store?

·   A. tfplan files

·   B. Terraform binary

·   C. Provider plugins

·   D. State file

Ans : D

35. You have multiple team members collaborating on infrastructure as code (IaC) using Terraform, and want to apply formatting standards for readability.

How can you format Terraform HCL (HashiCorp Configuration Language) code according to standard Terraform style convention?

·   A. Run the terraform fmt command during the code linting phase of your CI/CD process

·   B. Designate one person in each team to review and format everyone's code

C. Manually apply two spaces indentation and align equal sign "=" characters in every Terraform file (*.tf)

D. Write a shell script to trAns :form Terraform files using tools such as AWK, Python, and sed

Ans : A

36. What value does the Terraform Cloud/Terraform Enterprise private module registry provide over the public Terraform Module Registry?

A. The ability to share modules with public Terraform users and members of Terraform Enterprise Organizations

B. The ability to tag modules by version or release

C. The ability to restrict modules to members of Terraform Cloud or Enterprise organizations

D. The ability to share modules publicly with any user of Terraform

Ans : C

37. Which task does terraform init not perform?

A. Sources all providers present in the configuration and ensures they are downloaded and available locally

B. Connects to the backend

C. Sources any modules and copies the configuration locally

D. Validates all required variables are present

Ans : D

38. You have declared a variable called var.list which is a list of objects that all have an attribute id.

Which options will produce a list of the IDs? (Choose two.)

A. { for o in var.list : o => o.id }

·   B. var.list[*].id

·   C. [var.list[*].id]

·   D. [for o in var.list : o.id]

Ans : BD

39. Which argument(s) is (are) required when declaring a Terraform variable?

·   A. type

·   B. default

·   C. description

·   D. All of the above

·   E. None of the above

Ans : E

40. When using a module block to reference a module stored on the public Terraform Module Registry such as:

How do you specify version 1.0.0?

·   A. Modules stored on the public Terraform Module Registry do not support versioning

·   B. Append ?ref=v1.0.0 argument to the source path

·   C. Add version = "1.0.0" attribute to module block

·   D. Nothing ;€" modules stored on the public Terraform Module Registry always default to version 1.0.0

Ans : C

41. What features does the hosted service Terraform Cloud provide? (Choose two.)

- A. Automated infrastructure deployment visualization

- B. Automatic backups

- C. Remote state storage

- D. A web-based user interface (UI)

Ans : CD

42. Where does the Terraform local backend store its state?

- A. In the /tmp directory

- B. In the terraform file

- C. In the terraform.tfstate file

- D. In the user's terraform.state file

Ans : C

43. Which option can not be used to keep secrets out of Terraform configuration files?

- A. A Terraform provider

- B. Environment variables

- C. A -var flag

- D. secure string

Ans : D

44. What is one disadvantage of using dynamic blocks in Terraform?

- A. They cannot be used to loop through a list of values

- B. Dynamic blocks can construct repeatable nested blocks

- C. They make configuration harder to read and understand

- D. Terraform will run more slowly

Ans : C

45. Only the user that generated a plan may apply it.

    ·   A. True

    ·   B. False

Ans : B

46. Examine the following Terraform configuration, which uses the data source for an AWS AMI.

What value should you enter for the ami argument in the AWS instance resource?

    ·   A. aws_ami.ubuntu

    ·   B. data.aws_ami.ubuntu

    ·   C. data.aws_ami.ubuntu.id

    ·   D. aws_ami.ubuntu.id

Ans : C

47. FILL BLANK -

You need to specify a dependency manually.

What resource meta-parameter can you use to make sure Terraform respects the dependency?

Type your Ans :wer in the field provided. The text field is not case-sensitive and all variations of the correct Ans :wer are accepted.

Ans : depends_on

48. You have never used Terraform before and would like to test it out using a shared team account for a cloud provider. The shared team account already contains

15 virtual machines (VM). You develop a Terraform configuration containing one VM, perform terraform apply, and see that your VM was created successfully.

What should you do to delete the newly-created VM with Terraform?

· A. The Terraform state file contains all 16 VMs in the team account. Execute terraform destroy and select the newly-created VM.

· B. The Terraform state file only contains the one new VM. Execute terraform destroy.

· C. Delete the Terraform state file and execute Terraform apply.

· D. Delete the VM using the cloud provider console and terraform apply to apply the changes to the Terraform state file.

Ans : B

49. What is the name assigned by Terraform to reference this resource?

· A. dev

· B. azurerm_resource_group

· C. azurerm

· D. test

Ans : A

50. Setting the TF_LOG environment variable to DEBUG causes debug messages to be logged into syslog.

· A. True

· B. False

Ans : B

51. Where in your Terraform configuration do you specify a state backend?

· A. The terraform block

· B. The resource block

· C. The provider block

· D. The datasource block

Ans : A

52. In Terraform 0.13 and above, outside of the required_providers block, Terraform configurations always refer to providers by their local names.

·   A. True

·   B. False

Ans : A

53. What command should you run to display all workspaces for the current configuration?

·   A. terraform workspace

·   B. terraform workspace show

·   C. terraform workspace list

·   D. terraform show workspace

Ans : C

54. Terraform providers are always installed from the Internet.

·   A. True

·   B. False

Ans : B

55. Which of these is the best practice to protect sensitive values in state files?

·   A. Blockchain

·   B. Secure Sockets Layer (SSL)

·   C. Enhanced remote backends

·   D. Signed Terraform providers

Ans : C

56. When does terraform apply reflect changes in the cloud environment?

· A. Immediately

· B. However long it takes the resource provider to fulfill the request

· C. After updating the state file

· D. Based on the value provided to the -refresh command line argument

· E. None of the above

Ans : B

57. How would you reference the "name" value of the second instance of this fictitious resource?

· A. element(aws_instance.web, 2)

· B. aws_instance.web[1].name

· C. aws_instance.web[1]

· D. aws_instance.web[2].name

· E. aws_instance.web.*.name

Ans : B

58. A Terraform provider is not responsible for:

· A. Understanding API interactions with some service

· B. Provisioning infrastructure in multiple clouds

· C. Exposing resources and data sources based on an API

· D. Managing actions to take based on resource differences

Ans : B

59. Terraform provisioners can be added to any resource block.

· A. True

· B. False

Ans : B

60. What is terraform refresh intended to detect?

- A. Terraform configuration code changes

- B. Empty state files

- C. State file drift

- D. Corrupt state files

Ans : C

61.FILL BLANK -

Which flag would you add to terraform plan to save the execution plan to a file?

Type your Ans :wer in the field provided. The text field is not case-sensitive and all variations of the correct Ans :wer are accepted.

Ans : *-out=FILENAME*

62.FILL BLANK -

What is the name of the default file where Terraform stores the state?

Type your Ans :wer in the field provided. The text field is not case-sensitive and all variations of the correct Ans :wer are accepted.

Ans : terraform.tfstate

63.A Terraform local value can reference other Terraform local values.

- A. True

- B. False

Ans : A

64. Which of the following is not a valid Terraform collection type?

- A. list

· B. map

· C. tree

· D. set

Ans : C

65. When running the command terraform taint against a managed resource you want to force recreation upon, Terraform will immediately destroy and recreate the resource.

· A. True

· B. False

Ans : B

66. All standard backend types support state storage, locking, and remote operations like plan, apply and destroy.

· A. True

· B. False

Ans : B

67. How can terraform plan aid in the development process?

· A. Validates your expectations against the execution plan without permanently modifying state

· B. Initializes your working directory containing your Terraform configuration files

· C. Formats your Terraform configuration files

· D. Reconciles Terraform's state against deployed resources and permanently modifies state using the current status of deployed resources

Ans : A

68. You would like to reuse the same Terraform configuration for your development and production environments with a different state file for each.

Which command would you use?

· A. terraform import

· B. terraform workspace

· C. terraform state

· D. terraform init

Ans : B

69. What is the name assigned by Terraform to reference this resource?

· A. compute_instance

· B. main

· C. google

· D. teat

Ans : B

70. You're building a CI/CD (continuous integration/ continuous delivery) pipeline and need to inject sensitive variables into your Terraform run.

How can you do this safely?

· A. Pass variables to Terraform with a ג€"var flag

· B. Copy the sensitive variables into your Terraform code

· C. Store the sensitive variables in a secure_vars.tf file

· D. Store the sensitive variables as plain text in a source code repository

Ans : A

71. Your security team scanned some Terraform workspaces and found secrets stored in a plaintext in state files.

How can you protect sensitive data stored in Terraform state files?

· A. Delete the state file every time you run Terraform

· B. Store the state in an encrypted backend

· C. Edit your state file to scrub out the sensitive data

· D. Always store your secrets in a secrets.tfvars file.

Ans : B

72. In contrast to Terraform Open Source, when working with Terraform Enterprise and Cloud Workspaces, conceptually you could think about them as completely separate working directories.

· A. True

· B. False

Ans : A

73. You want to know from which paths Terraform is loading providers referenced in your Terraform configuration (*.tf files). You need to enable debug messages to find this out.

Which of the following would achieve this?

· A. Set the environment variable TF_LOG=TRACE

· B. Set verbose logging for each provider in your Terraform configuration

· C. Set the environment variable TF_VAR_log=TRACE

· D. Set the environment variable TF_LOG_PATH

Ans : A

74. How is terraform import run?

· A. As a part of terraform init

· B. As a part of terraform plan

· C. As a part of terraform refresh

· D. By an explicit call

· E. All of the above

Ans : D

75. You have a simple Terraform configuration containing one virtual machine (VM) in a cloud provider. You run terraform apply and the VM is created successfully.

What will happen if you delete the VM using the cloud provider console, and run terraform apply again without changing any Terraform code?

· A. Terraform will remove the VM from state file

· B. Terraform will report an error

· C. Terraform will not make any changes

· D. Terraform will recreate the VM

Ans : D

76. Which of these options is the most secure place to store secrets foe connecting to a Terraform remote backend?

· A. Defined in Environment variables

· B. Inside the backend block within the Terraform configuration

· C. Defined in a connection configuration outside of Terraform

· D. None of above

Ans : A and maybe C

77. Your DevOps team is currently using the local backend for your Terraform configuration. You would like to move to a remote backend to begin storing the state file in a central location.

Which of the following backends would not work?

· A. Amazon S3

· B. Artifactory

· C. Git

· D. Terraform Cloud

Ans : C

78. Which backend does the Terraform CLI use by default?

· A. Terraform Cloud

· B. Consul

· C. Remote

· D. Local

Ans : D

79. When you initialize Terraform, where does it cache modules from the public Terraform Module Registry?

· A. On disk in the /tmp directory

· B. In memory

· C. On disk in the .terraform sub-directory

· D. They are not cached

Ans : C

80. You write a new Terraform configuration and immediately run terraform apply in the CLI using the local backend.

Why will the apply fail?

· A. Terraform needs you to format your code according to best practices first

· B. Terraform needs to install the necessary plugins first

· C. The Terraform CLI needs you to log into Terraform cloud first

· D. Terraform requires you to manually run terraform plan first

Ans : B

81. What features stops multiple admins from changing the Terraform state at the same time?

· A. Version control

· B. Backend types

· C. Provider constraints

· D. State locking

Ans : D

82. A fellow developer on your team is asking for some help in refactoring their Terraform code. As part of their application's architecture, they are going to tear down an existing deployment managed by Terraform and deploy new. However, there is a server resource named aws_instance.ubuntu[1] they would like to keep to perform some additional analysis.

What command should be used to tell Terraform to no longer manage the resource?

· A. terraform apply rm aws_instance.ubuntu[1]

· B. terraform state rm aws_instance.ubuntu[1]

· C. terraform plan rm aws_instance.ubuntu[1]

· D. terraform delete aws_instance.ubuntu[1]

Ans : B

83. Terraform can only manage resource dependencies if you set them explicitly with the depends_on argument.

· A. True

· B. False

Ans : B

84. A terraform apply can not _____ infrastructure.

· A. change

· B. destroy

· C. provision

· D. import

Ans : D

85. You need to constrain the GitHub provider to version 2.1 or greater.

Which of the following should you put into the Terraform 0.12 configuration's provider block?

· A. version >= 2.1

· B. version ~> 2.1

· C. version = ›2.1 =>€›€

· D. version = ›2.1 =<€›€

Ans : D

86. You just scaled your VM infrastructure and realized you set the count variable to the wrong value. You correct the value and save your change.

What do you do next to make your infrastructure match your configuration?

· A. Run an apply and confirm the planned changes

· B. Inspect your Terraform state because you want to change it

· C. Reinitialize because your configuration has changed

· D. Inspect all Terraform outputs to make sure they are correct

Ans : A

87. Terraform provisioners that require authentication can use the _____ block.

· A. connection

· B. credentials

· C. secrets

· D. ssh

Ans : A

88. Terraform validate reports syntax check errors from which of the following scenarios?

· A. Code contains tabs indentation instead of spaces

· B. There is missing value for a variable

· C. The state files does not match the current infrastructure

· D. None of the above

Ans : B

89. Which of the following is allowed as a Terraform variable name?

· A. count

· B. name

· C. source

· D. version

Ans : B

90. What type of block is used to construct a collection of nested configuration blocks?

· A. for_each

· B. repeated

· C. nesting

· D. dynamic

Ans : D

91. Module variable assignments are inherited from the parent module and do not need to be explicitly set.

    · A. True

    · B. False

Ans : B

92. If writing Terraform code that adheres to the Terraform style conventions, how would you properly indent each nesting level compared to the one above it?

    · A. With four spaces

    · B. With a tab

    · C. With three spaces

    · D. With two spaces

Ans : D

93. Which of the following is not an action performed by terraform init?

    · A. Create a sample main.tf file

    · B. Initialize a configured backend

    · C. Retrieve the source code for all referenced modules

    · D. Load required provider plugins

Ans : A

94. HashiCorp Configuration Language (HCL) supports user-defined functions.

    · A. True

    · B. False

Ans : B

95. How can you trigger a run in a Terraform Cloud workspace that is connected to a Version Control System (VCS) repository?

    ·   A. Only Terraform Cloud organization owners can set workspace variables on VCS connected workspaces

    ·   B. Commit a change to the VCS working directory and branch that the Terraform Cloud workspace is connected to

    ·   C. Only members of a VCS organization can open a pull request against repositories that are connected to Terraform Cloud workspaces

    ·   D. Only Terraform Cloud organization owners can approve plAns : in VCS connected workspaces

Ans : B

96.Terraform and Terraform providers must use the same major version number in a single configuration.

    ·   A. True

    ·   B. False

Ans : B

97. Which statement describes a goal of infrastructure as code?

    ·   A. An abstraction from vendor specific APIs

    ·   B. Write once, run anywhere

    ·   C. A pipeline process to test and deliver software

    ·   D. The programmatic configuration of resources

Ans : D

98. When using Terraform to deploy resources into Azure, which scenarios are true regarding state files? (Choose two.)

    ·   A. When a change is made to the resources via the Azure Cloud Console, the changes are recorded in a new state file

·   B. When a change is made to the resources via the Azure Cloud Console, Terraform will update the state file to reflect them during the next plan or apply

·   C. When a change is made to the resources via the Azure Cloud Console, the current state file will not be updated

·   D. When a change is made to the resources via the Azure Cloud Console, the changes are recorded in the current state file

Ans : BC

99. You need to deploy resources into two different cloud regions in the same Terraform configuration. To do that, you declare multiple provider configurations as follows:

What meta-argument do you need to configure in a resource block to deploy the resource to the `us-west-2` AWS region?

·   A. alias = west

·   B. provider = west

·   C. provider = aws.west

·   D. alias = aws.west

Ans : C

100. You have declared an input variable called environment in your parent module. What must you do to pass the value to a child module in the configuration?

·   A. Add node_count = var.node_count

·   B. Declare the variable in a terraform.tfvars file

·   C. Declare a node_count input variable for child module

·   D. Nothing, child modules inherit variables of parent module

Ans : B

101. If a module declares a variable with a default, that variable must also be defined within the module.

·   A. True

·   B. False

Ans : B

102. Which option cannot be used to keep secrets out of Terraform configuration files?

·   A. Environment Variables

·   B. Mark the variable as sensitive

·   C. A Terraform provider

·   D. A -var flag

Ans : B

103. Which of the following arguments are required when declaring a Terraform output?

·   A. sensitive

·   B. description

·   C. default

·   D. value

Ans : D

105. Most Terraform providers interact with _____.

·   A. API

·   B. VCS Systems

·   C. Shell scripts

·   D. None of the above

Ans : A

106. terraform validate validates that your infrastructure matches the Terraform state file.

  · A. True

  · B. False

Ans : B

107. What does terraform import allow you to do?

  · A. Import a new Terraform module

  · B. Use a state file to import infrastructure to the cloud

  · C. Import provisioned infrastructure to your state file

  · D. Import an existing state file to a new Terraform workspace

Ans : C

108. FILL BLANK -

In the below configuration, how would you reference the module output vpc_id?

Type your Ans :wer in the field provided. The text field is not case sensitive and all variations of the correct Ans :wer are accepted.

Ans : value=module.vpc.id

109. How would you reference the Volume IDs associated with the ebs_block_device blocks in this configuration?

  · A. aws_instance.example.ebs_block_device.[*].volume_id

  · B. aws_instance.example.ebs_block_device.volume_id

  · C. aws_instance.example.ebs_block_device[sda2,sda3].volume_id

  · D. aws_instance.example.ebs_block_device.*.volume_id

Ans : A

110. What does state locking accomplish?

   ·   A. Copies the state file from memory to disk

   ·   B. Encrypts any credentials stored within the state file

   ·   C. Blocks Terraform commands from modifying the state file

   ·   D. Prevents accidental deletion of the state file

Ans : C

111. You just upgraded the version of a provider in an existing Terraform project. What do you need to do to install the new provider?

   ·   A. Run terraform apply -upgrade

   ·   B. Run terraform init -upgrade

   ·   C. Run terraform refresh

   ·   D. Upgrade your version of Terraform

Ans : B

112. A module can always refer to all variables declared in its parent module.

   ·   A. True

   ·   B. False

Ans : B

113. When you use a remote backend that needs authentication, HashiCorp recommends that you:

   ·   A. Use partial configuration to load the authentication credentials outside of the Terraform code

   ·   B. Push your Terraform configuration to an encrypted git repository

· C. Write the authentication credentials in the Terraform configuration files

· D. Keep the Terraform configuration files in a secret store

Ans : A

114. You have a simple Terraform configuration containing one virtual machine (VM) in a cloud provider. You run terraform apply and the VM is created successfully.

What will happen if you terraform apply again immediately afterwards without changing any Terraform code?

· A. Terraform will terminate and recreate the VM

· B. Terraform will create another duplicate VM

· C. Terraform will apply the VM to the state file

· D. Nothing

Ans : D

115. A junior admin accidentally deleted some of your cloud instances. What does Terraform do when you run terraform apply?

· A. Build a completely brand new set of infrastructure

· B. Tear down the entire workspace infrastructure and rebuild it

· C. Rebuild only the instances that were deleted

· D. Stop and generate an error message about the missing instances

Ans : C

116. You have created a main.tr Terraform configuration consisting of an application server, a database, and a load balancer. You ran terraform apply and all resources were created successfully. Now you realize that you do not actually need the load balancer so you run terraform destroy without any flags What will happen?

· A. Terraform will destroy the application server because it is listed first in the code

· B. Terraform will prompt you to confirm that you want to destroy all the infrastructure

· C. Terraform will destroy the main.tf file

· D. Terraform will prompt you to pick which resource you want to destroy

· E. Terraform will immediately destroy all the infrastructure

Ans : B

117. Which type of block fetches or computes information for use elsewhere in a Terraform configuration?

· A. provider

· B. resource

· C. local

· D. data

Ans : D

118. You have just developed a new Terraform configuration for two virtual machines with a cloud provider. You would like to create the infrastructure for the first time.

Which Terraform command should you run first?

· A. terraform apply

· B. terraform plan

· C. terraform show

· D. terraform init

Ans : D

119. All modules published on the official Terraform Module Registry have been verified by HashiCorp.

· A. True

· B. False

Ans : B

120. You have to initialize a Terraform backend before it can be configured.

· A. True

· B. False

Ans : A

121. Which of the following does terraform apply change after you approve the execution plan? (Choose two.)

· A. Cloud infrastructure

· B. The .terraform directory

· C. The execution plan

· D. State file

· E. Terraform code

Ans : AD

122. A Terraform backend determines how Terraform loads state and stores updates when you execute _____.

· A. apply

· B. taint

· C. destroy

· D. All of the above

· E. None of the above

Ans : D

123. What does Terraform use .terraform.lock.hcl file for?

·   A. Tracking provider dependencies

·   B. There is no such file

·   C. Preventing Terraform runs from occurring

·   D. Storing references to workspaces which are locked

Ans : A

124. You've used Terraform to deploy a virtual machine and a database. You want to replace this virtual machine instance with an identical one without affecting the database. What is the best way to achieve this using Terraform?

·   A. Use the terraform state rm command to remove the VM from state file

·   B. Use the terraform taint command targeting the VMs then run terraform plan and terraform apply

·   C. Use the terraform apply command targeting the VM resources only

·   D. Delete the Terraform VM resources from your Terraform code then run terraform plan and terraform apply

Ans : B

125. How do you specify a module's version when publishing it to the public Terraform Module Registry?

·   A. The module's configuration page on the Terraform Module Registry

·   B. Terraform Module Registry does not support versioning modules

·   C. The release tags in the associated repo

·   D. The module's Terraform code

Ans : C

126. Terraform plan updates your state file.

·   A. True

·   B. False

Ans : B

127. To check if all code in a Terraform configuration with multiple modules is properly formatted without making changes, what command should be run?

- A. terraform fmt -check

- B. terraform fmt -write-false

- C. terraform fmt ג€"list -recursive

- D. terraform fmt -check -recursive

Ans : D

128. As a member of the operations team, you need to run a script on a virtual machine created by Terraform. Which provision is best to use in your Terraform code?

- A. null-ex|μ

- B. local-exec

- C. remote-exec

- D. file

Ans : C

129. You are using a networking module in your Terraform configuration with the name label my_network. In your main configuration you have the following code:

When you run terraform validate, you get the following error:

What must you do to successfully retrieve this value from your networking module?

- A. Define the attribute vnet_id as a variable in the networking module

- B. Change the referenced value to module.my_network.outputs.vnet_id

C. Define the attribute vnet_id as an output in the networking module

D. Change the referenced value to my_network.outputs.vnet_id

Ans : –> C

131. How can a ticket-based system slow down infrastructure provisioning and limit the ability to scale? (Choose two.)

A. A full audit trail of the request and fulfillment process is generated

B. A request must be submitted for infrastructure changes

C. As additional resources are required, more tickets are submitted

D. A catalog of approved resources can be accessed from drop down lists in a request form

Ans : BC

132. Which of the following statements about Terraform modules is not true?

A. Modules must be publicly accessible

B. Modules can be called multiple times

C. Module is a container for one or more resources

D. Modules can call other modules

Ans : A

133. Which Terraform collection type should you use to store key/value pairs?

A. tuple

B. set

C. ma€

D. list

Ans : C

134. You have used Terraform to create an ephemeral development environment in the cloud and are now ready to destroy all the infrastructure described by your

Terraform configuration. To be safe, you would like to first see all the infrastructure that will be deleted by Terraform.

Which command should you use to show all of the resources that will be deleted? (Choose two.)

    ·   A. Run terraform plan -destroy

    ·   B. Run terraform show -destroy

    ·   C. Run terraform destroy and it will first output all the resources that will be deleted before prompting for approval

    ·   D. Run terraform show -destroy

Ans : AC

135. When do you need to explicitly execute terraform refresh?

    ·   A. Before every terraform plan

    ·   B. Before every terraform apply

    ·   C. Before every terraform import

    ·   D. None of the above

Ans : D

137. What advantage does an operations team that uses infrastructure as code have?

    ·   A. The ability to delete infrastructure

    ·   B. The ability to update existing infrastructure

    ·   C. The ability to reuse best practice configurations and settings

    ·   D. The ability to autoscale a group of servers

Ans : C

138. You have modified your Terraform configuration to fix a typo in the Terraform ID of a resource from aws_security_group.http to aws_security_group.http

Which of the following commands would you run to update the ID in state without destroying the resource?

  · A. terraform mv aws_security_group.htp aws_security_group.http

  · B. terraform apply

  · C. terraform refresh

Ans : A

139. You are creating a Terraform configuration which needs to make use of multiple providers, one for AWS and one for Datadog.

Which of the following provider blocks would allow you to do this?

A.

B.

C.

Ans : B

140.Terraform variable names are saved in the state file.

  · A. True

  · B. False

Ans : B

141. Terraform Cloud is available only as a paid offering from HashiCorp.

· A. True

· B. False

Ans : B

142. Which of the following is not a way to trigger terraform destroy?

· A. Using the destroy command with auto-approve

· B. Running terraform destroy from the correct directory and then typing "yes" when prompted in the CLI

· C. Passing --destroy at the end of a plan request

· D. Delete the state file and run terraform apply

Ans : C

143. Which of the following is not an advantage of using infrastructure as code operations?

· A. Self-service infrastructure deployment

· B. Troubleshoot via a Linux diff command

· C. Public cloud console configuration workflows

· D. Modify a count parameter to scale resources

· E. API driven workflows

Ans : B

144. You're writing a Terraform configuration that needs to read input from a local file called id_rsa.pub.

Which built-in Terraform function can you use to import the file's contents as a string?

A. fileset("id_rsa.pub")

B. filebase64("id_rsa.pub")

C. templatefile("id_rsa.pub")

D. file("id_rsa.pub")

Ans : D

145. What does Terraform use providers for? (Choose three.)

A. Provision resources for on-premises infrastructure services

B. Simplify API interactions

C. Provision resources for public cloud infrastructure services

D. Enforce security and compliance policies

E. Group a collection of Terraform configuration files that map to a single state file

Ans : ABC

146. You can reference a resource created with for_each using a Splat (*) expression.

A. True

B. False

Ans : B

147. How does Terraform determine dependencies between resources?

A. Terraform automatically builds a resource graph based on resources, provisioners, special meta-parameters, and the state file, if present.

B. Terraform requires all dependencies between resources to be specified using the depends_on parameter

C. Terraform requires resources in a configuration to be listed in the order they will be created to determine dependencies

D. Terraform requires resource dependencies to be defined as modules and sourced in order

Ans : A

148. Which parameters does terraform import require? (Choose two.)

    · A. Path

    · B. Provider

    · C. Resource ID

    · D. Resource address

Ans : CD

149. Once a new Terraform backend is configured with a Terraform code block, which command(s) is (are) used to migrate the state file?

    · A. terraform apply

    · B. terraform push

    · C. terraform destroy, then terraform apply

    · D. terraform init

Ans : B

150. What does this code do?

    · A. Requires any version of the AWS provider >= 3.0 and < 4.0

    · B. Requires any version of the AWS provider >= 3.0

    · C. Requires any version of the AWS provider after the 3.0 major release, like 4.1

    · D. Requires any version of the AWS provider > 3.0

Ans : A

152. Which of the following is not valid source path for specifying a module?

·   A. source = "./modulelversion=v1.0.0"

·   B. source = "github.com/hashicorp/example?ref=v1.0.0"

·   C. source = "./module"

·   D. source = "hashicorp/consul/aws"

Ans : A

153. Which of the following is true about terraform apply? (Choose two.)

·   A. It only operates on infrastructure defined in the current working directory or workspace

·   B. You must pass the output of a terraform plan command to it

·   C. Depending on provider specification, Terraform may need to destroy and recreate your infrastructure resources

·   D. By default, it does not refresh your state file to reflect current infrastructure configuration

·   E. You cannot target specific resources for the operation

Ans : AC

154. Which of the following statements about local modules is incorrect?

·   A. Local modules are not cached by terraform init command

·   B. Local modules are sourced from a directory on disk

·   C. Local modules support versions

·   D. All of the above (all statements above are incorrect)

·   E. None of the above (all statements above are correct)

Ans : C

155. Which of the following is true about Terraform's implementation of infrastructure as code? (Choose two.)

· A. It is only compatible with AWS infrastructure management

· B. You cannot reuse infrastructure configuration

· C. You can version your infrastructure configuration

· D. It requires manual configuration of infrastructure resources

· E. It allows you to automate infrastructure provisioning

Ans : CE

156. You need to write some Terraform code that adds 42 firewall rules to a security group as shown in the example.

What can you use to avoid writing 42 different nested ingress config blocks by hand?

· A. A count loop

· B. A for block

· C. A for each block

· D. A dynamic block

Ans : D

157. Which of the following is the safest way to inject sensitive values into a Terraform Cloud workspace?

· A. Write the value to a file and specify the file with the -var-file flag

· B. Set a value for the variable in the UI and check the "Sensitive" check box

· C. Edit the state file directly just before running terraform apply

· D. Set the variable value on the command line with the -var flag

Ans : B

158. terraform apply will fail if you have not am terraform plan first to update the plan output.

· A. True

· B. False

Ans : B

159. How would you reference the attribute "name" of this fictitious resource in HCL?

· A. resource.kubernetes_namespace.example.name

· B. kubernetes_namespace.test.name

· C. kubernetes_namespace.example.name

· D. data.kubernetes_namespace.name

· E. None of the above

Ans : C

160. A Terraform output that sets the "sensitive" argument to true will not store that value in the state file.

· A. True

· B. False

Ans : B

161. Which are forbidden actions when the Terraform state file is locked? (Choose three.)

· A. terraform destroy

· B. terraform fmt

· C. terraform state list

· D. terraform apply

· E. terraform plan

· F. terraform validate

Ans : ADE

162. Terraform installs its providers during which phase?

    ·   A. Plan

    ·   B. Init

    ·   C. Refresh

    ·   D. All of the above

Ans : B

163. When does Sentinel enforce policy logic during a Terraform Enterprise run?

    ·   A. Before the plan phase

    ·   B. During the plan phase

    ·   C. Before the apply phase

    ·   D. After the apply phase

Ans : C

164. What is the purpose of a Terraform workspace in either open source or enterprise?

    ·   A. Workspaces allow you to manage collections of infrastructure in state files

    ·   B. A logical separation of business units

    ·   C. A method of grouping multiple infrastructure security policies

    ·   D. Provides limited access to a cloud environment

Ans : A

165. Which is the best way to specify a tag of v1.0.0 when referencing a module stored in Git (for example git::https://example.com/vpc.git)?

    ·   A. Append ?ref=v1. 0. 0 argument to the source path

·   B. Add version = "1.0.0" parameter to module block

·   C. Nothing ;€" modules stored on GitHub always default to version 1.0.0

·   D. Modules stored on GitHub do not support versioning

Ans : A

166. Changing the Terraform backend from the default "local" backend to a different one after doing your first terraform apply is:

·   A. Mandatory

·   B. Optional

·   C. Impossible

·   D. Discouraged

Ans : B

167. You have modified your local Terraform configuration and ran terraform plan to review the changes. Simultaneously, your teammate manually modified the infrastructure component you are working on. Since you already ran terraform plan locally, the execution plan for terraform apply will be the same.

·   A. True

·   B. False

Ans : B

168. terraform apply is failing with the following error. What next step should you take to determine the root cause of the problem?

Error loading state: AccessDenied: Access Denied status code: 403, request id: 288766CE5CCA24A0, host id: FOOBAR

·   A. Set TF_LOG=DEBUG

·   B. Review syslog for Terraform error messages

· C. Run terraform login to reauthenticate with the provider

· D. Review /var/log/terraform.log for error messages

Ans : A

169. As a member of an operations team that uses infrastructure as code (IaC) practices, you are tasked with making a change to an infrastructure stack running in a public cloud.

Which pattern would follow IaC best practices for making a change?

· A. Clone the repository containing your infrastructure code and then run the code

· B. Use the public cloud console to make the change after a database record has been approved

· C. Make the change programmatically via the public cloud CLI

· D. Make the change via the public cloud API endpoint

· E. Submit a pull request and wait for an approved merge of the proposed changes

Ans : E

170. What command can you run to generate DOT (Document Template) formatted data to visualize Terraform dependencies?

· A. terraform refresh

· B. terraform show

· C. terraform graph

· D. terraform output

Ans : C

#Confusion
171. Which provider authentication method prevents credentials from being stored in the state file?

· A. Using environment variables

172. Running terraform fmt without any flags in a directory with Terraform configuration files will check the formatting of those files without changing their contents.

· A. True

· B. False

Ans : B

173. terraform init retrieves the source code for all referenced modules.

· A. True

· B. False

Ans : A

174. You have a Terraform configuration that defines a single virtual machine with no references to it. You have run terraform apply to create the resource, and then removed the resource definition from your Terraform configuration file.

What will happen when you run terraform apply in the working directory again?

· A. Nothing

· B. Terraform will destroy the virtual machine

· C. Terraform will error

· D. Terraform will remove the virtual machine from the state file, but the resource will still exist

Ans : B

175. Which configuration consistency errors does terraform validate report?

· A. A mix of spaces and tabs in configuration files

· B. Differences between local and remote state

· C. Terraform module isn't the latest version

· D. Declaring a resource identifier more than once

Ans : D

176. In Terraform HCL, an object type of object({ name=string, age=number }) would match this value:
A.

B.

Ans : B

178. Which of the following locations can Terraform use as a private source for modules? (Choose two.)

· A. Internally hosted SCM (Source Control Manager) platform

· B. Public Terraform Module Registry

· C. Private repository on GitHub

· D. Public repository on GitHub

Ans : AC

179. Why should secrets not be hard coded into Terraform code? (Choose two.)

· A. It makes the code less reusable.

· B. Terraform code is typically stored in version control, as well as copied to the systems from which it's run. Any of those may not have robust security mechanisms.

C. The Terraform code is copied to the target resources to be applied locally and could expose secrets if a target resource is compromised.

D. All passwords should be rotated on a quarterly basis.

Ans : BC

180.If a Terraform creation-time provisioner fails, what will occur by default?

A. The resource will not be affected, but the provisioner will need to be applied again

B. The resource will be destroyed

C. The resource will be marked as "tainted"

D. Nothing, provisioners will not show errors in the command line

Ans : C

181. When should Terraform configuration files be written when running terraform import on existing infrastructure?

A. Infrastructure can be imported without corresponding Terraform code

B. Terraform will generate the corresponding configuration files for you

C. You should write Terraform configuration files after the next terraform import is executed

D. Terraform configuration should be written before terraform import is executed

Ans : D

182. Which command lets you experiment with Terraform's built-in functions?

A. terraform env

B. terraform console

C. terraform test

D. terraform validate

Ans : B

183. Why does this backend configuration not follow best practices?

· A. You should not store credentials in Terraform Configuration

· B. You should use the local enhanced storage backend whenever possible

· C. An alias meta-argument should be included in backend blocks whenever possible

· D. The backend configuration should contain multiple credentials so that more than one user can execute terraform plan and terraform apply

Ans : A

184. Open source Terraform can only import publicly-accessible and open-source modules.

· A. True

· B. False

Ans : B

185. What does terraform destroy do?

· A. Destroy all infrastructure in the Terraform state file

· B. Destroy all Terraform code files in the current directory while leaving the state file intact

· C. Destroy all infrastructure in the configured Terraform provider

· D. Destroy the Terraform state file while leaving infrastructure intact

Ans : A

186. While attempting to deploy resources into your cloud provider using Terraform, you begin to see some odd behavior and experience sluggish responses. In order to troubleshoot you decide to turn on Terraform debugging. Which environment variables must be configured to make Terraform's logging more verbose?

· A. TF_LOG_LEVEL

· B. TF_LOG_FILE

· C. TF_LOG

· D. TP_LOG_PATH

Ans : C

187. If a DevOps team adopts AWS CloudFormation as their standardized method for provisioning public cloud resources, which of the following scenarios poses a challenge for this team?

· A. The team is asked to build a reusable code base that can deploy resources into any AWS region

· B. The team is asked to manage a new application stack built on AWS-native services

· C. The organization decides to expand into Azure and wishes to deploy new infrastructure using their existing codebase

· D. The DevOps team is tasked with automating a manual provisioning process

Ans : C

189. Which of the following can you do with terraform plan? (Choose two.)

· A. Save a generated execution plan to apply later

· B. Execute a plan in a different workspace

· C. View the execution plan and check if the changes match your expectations

· D. Schedule Terraform to run at a planned time in the future

Ans : AC

190. Which are examples of infrastructure as code? (Choose two.)

· A. Cloned virtual machine images

· B. Change management database records

· C. Versioned configuration files

·   D. Docker files

Ans : CD

191. FILL BLANK -
You need to migrate a workspace to use a remote backend. After updating your configuration, what command do you run to perform the migration?
Type your Ans :wer in the field provided. The text field is not case-sensitive and all variations of the correct Ans :wer are accepted.

Ans : terraform init