

Cisco.200-901.vJul-2024.by.Tien.225q

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Exam Code: 200-901
Exam Name: DevNet Associate (DEVASC)



Exam A

QUESTION 1

Refer to the exhibit.

```
1 def enable_function(if_name, if_status, if_type):
2     headers = {'Accept': 'application/yang-data+json',
3               'Content-Type': 'application/yang-data+json'}
4     payload = {
5         "ietf-interfaces:interface": {
6             "name": if_name,
7             "enabled": if_status,
8             "type": if_type,
9         }
10    }
11    base_url = 'https://192.168.1.1:8443'
12    restconf_url = '/restconf/data/ietf-interfaces:interfaces/interface'
13
14    res = requests.put(f'{base_url}{restconf}={if_name}',
15                      headers=headers, json=payload,
16                      auth=('cisco', 'secret'), verify=False)
```

A network engineer wants to automate the port enable/disable process on specific Cisco switches. The engineer creates a script to send a request through RESTCONF and uses ietf as the YANG model and JSON as payload. Which command enables an interface named Loopback1?

- A. enable_function(Loopback1, true, 'iana-if-type:softwareLoopback')
- B. enable_function('iana-if-type:softwareLoopback', Loopback1, true,)
- C. def enable_function('iana-if-type:softwareLoopback', Loopback1, false,)
- D. def enable_function(Loopback1, true, 'iana-if-type:softwareLoopback')

Correct Answer: D

Section:

QUESTION 2

An engineer must configure Cisco Nexus devices and wants to automate this workflow. The engineer enables the Cisco NXOS REST API to configure the devices by using an Ansible playbook. Before running the code, which resource must be used to verify that the code works correctly?

- A. Cisco NX-OS SDK
- B. Cisco Learning Labs
- C. Cisco Code Exchange
- D. Cisco Modeling Labs

Correct Answer: A

Section:

QUESTION 3

A new application is being developed with specific platform requirements. The platform and application deployment and the ongoing platform management must be fully automated. The application includes a large database component that has significant disk I/O requirements. Which application deployment type meets the requirements?

- A. Python virtual environment
- B. virtual machine
- C. bare metal
- D. container

Correct Answer: B

Section:

QUESTION 4

Which implementation creates a group of devices on one or more LANs that are configured to communicate as if they were attached to the same wire?

- A. WLAN
- B. VLAN
- C. IPsec
- D. HSRP

Correct Answer: B

Section:

QUESTION 5

What are two properties of private IP addresses? (Choose two.)

- A. They can be used to access the Internet directly.
- B. They are more secure than public IP addresses.
- C. They are not globally unique.
- D. They can be repeated within the same local network.
- E. They are controlled globally by an IP address registry.

Correct Answer: B, D

Section:

QUESTION 6

An engineer must configure Cisco Nexus devices and wants to automate this workflow. The engineer will use an Ansible playbook to configure devices through Cisco NX REST API. Before the code is run, which resource must be used to verify that the REST API requests work as expected?

- A. Cisco Open NX-OS
- B. Cisco NX-OS SDK
- C. Cisco Learning Labs
- D. Cisco Code Exchange for Nexus

Correct Answer: C

Section:

Explanation:



QUESTION 7

What is a function of the default gateway in a network?

- A. to drop traffic that is destined to the default gateway
- B. to forward traffic to different subnets
- C. to forward traffic to the same subnet
- D. to drop traffic that is not destined to the default gateway

Correct Answer: B

Section:

Explanation:

QUESTION 8

What is a firehose webhook?

- A. It collects data from third-party cloud APIs for custom applications.
- B. It enables an application to receive real-time data from Cisco Webex.
- C. It enables data to flow from the Cisco Webex API to a user's application.
- D. It sends a notification of any event for commonly used resources.

Correct Answer: D

Section:

Explanation:

**QUESTION 9**

A file in a local Git repository has been updated and issued the `git add .` command. The `git diff` command has been run to compare the changes to the previous commit, but nothing shows. Which action identifies the problem?

- A. Run the `git add .` command again in the correct subdirectory to ensure changes added to the staging area.
- B. Run the `git commit` command before the differences are compared to receive the end state of the code.
- C. Run the `git status` command to see the differences between current and previous code review stages.
- D. Run the `git diff --staged` command to compare the code added to the staging area.

Correct Answer: D

Section:

Explanation:

QUESTION 10

Which protocol runs over TCP port 830?

- A. NETCONF
- B. Telnet
- C. RESTCONF
- D. HTTP

Correct Answer: A

Section:

Explanation:

QUESTION 11

Which protocol runs over TCP port 23?

- A. SSH
- B. NETCONF
- C. HTTP
- D. Telnet

Correct Answer: D

Section:

QUESTION 12

DRAG DROP

Drag and drop the code snippets from the bottom into the Python script to write API output to a csv file. Not all options are used.

Select and Place:

```
#!/usr/bin/env python3
import csv
import json
import 
#Create a request to grab info in api
response = requests. ('http://api.zippopotam.us/us/80301')

try:
    with open('80301.json', 'w') as outfile:
        json.dump(response.json(), outfile)
    print(.json())
except Exception as e:
    print(e)

with open('80301.csv', 'w') as outfile:
    json.dump(response.json(), outfile)
print(response.)
```

Vdumps

- | | | |
|----------|-------------|---------|
| response | requests | request |
| get | status_code | status |

Correct Answer:

```
#!/usr/bin/env python3
import csv
import json
import requests
#Create a request to grab info in api
response = requests.get('http://api.zippopotam.us/us/80301')

try:
    with open('80301.json', 'w') as outfile:
        json.dump(response.json(), outfile)
    print(response.json())
except Exception as e:
    print(e)

with open('80301.csv', 'w') as outfile:
    json.dump(response.json(), outfile)
print(response.status_code)
```

		request
		status

Section:

Explanation:

QUESTION 13

Refer to the exhibit.



```
1 - hosts: servers
2   tasks:
3
4   - name: task1
5     apt:
6       name: apache2
7       state: absent
8
9   - name: task2
10    apt:
11      name: nginx
12      state: present
13
14   - name: task3
15     apt:
16       name: "*"
17       state: latest
```



A developer must check packages on web load balancers that use nginx packages. The developer updates the servers as required in Ansible inventory and prepares an Ansible playbook to automate this workflow on related servers. Which process is being automated by the Ansible playbook?

- A. verifying that nginx is installed only if apache2 is unavailable on the system, and then updating all the other packages
- B. verifying, without installing, that apache2 is unavailable and that nginx is installed, and then updating the repository to the latest version
- C. uninstalling the apache2 server, installing the nginx server, and then updating all the packages to the latest version
- D. installing nginx, uninstalling apache2, and then verifying that the package repository is at the latest version

Correct Answer: B

Section:

QUESTION 14

Refer to the exhibit.

```

user_manager.py
1 import psycopg2
2 import json, sys
3
4 # Load config file
5 config = None
6 with open('config.json') as config_file:
7     config = json.load(config_file)
8 if not config:
9     print("Error loading configuration file.")
10    sys.exit(1)
11
12 connection = psycopg2.connect(
13     database="users",
14     host=config["DB_USER"], user=config["DB_USER"], password=config["DB_PWD"]
15 )
16 connection.set_session()
17
18 def has_admin_role(username):
19     with connection.cursor() as cursor:
20         query = 'SELECT admin_role FROM users WHERE username = {0}'
21         cursor.execute(query.format(username))
22         result = cursor.fetchone()
23     return result
24
25 has_admin_role("ops.shared")

config.json
1 {
2     "DB_USER": "pguser",
3     "DB_PWD": "@123Qwer!4",
4     "DB_HOST": "devnetdb.example.com"
5 }

```

An engineer must check the admin rights of users on a database regularly and prepares the Python script to automate the process. The script connects to the database and runs a query. What is a security issue about the secrets in the code that relates to secret protection?

- A. They must be stored in configuration files if there is a possibility of leakage.
- B. They must be Base64-encoded if stored in the user database.
- C. They must be encrypted if stored in the user database.
- D. They must be stored in configuration files if no authentication will be used.

Correct Answer: D

Section:

QUESTION 15

Refer to the exhibit.


```

1 import requests
2 import json
3
4 BASE_URL = "https://<IP Address>"
5 FIRST_URL = "/dna/intent/api/v1/network-device"
6 SECOND_URL = "/dna/intent/api/v1/network-device-poller/cli/read-request"
7 THIRD_URL = "/dna/intent/api/v1/task/{task_id}"
8 FOURTH_URL = "/dna/intent/api/v1/file/{file_id}"
9
10 headers = {"X-Auth-Token": "TOKEN", "Content-Type": "application/json"}
11
12 params = {"platformId": "C9500-40X"}
13 response = requests.get(BASE_URL + FIRST_URL, headers=headers, params=params)
14 devices = []
15 for device in response.json()["response"]:
16     devices.append(device["id"])
17
18     payload = {
19         "commands": ["show version", "show ip int brief"],
20         "deviceUuids": devices,
21         "timeout": 0,
22     }
23 response = requests.post(BASE_URL + SECOND_URL, data=json.dumps(payload),
24     · headers=headers)
25 task_id = response.json()["response"]["taskId"]
26 response = requests.get(BASE_URL + THIRD_URL.format(task_id=task_id),
27     · headers=headers)
28 progress_json = json.loads(response.json()["response"]["progress"])
29 file_id = progress_json["fileId"]
30 response = requests.get(BASE_URL + FOURTH_URL.format(file_id=file_id),
31     · headers=headers)
32 file_json = response.json()
33 for cmd in file_json:
34     print(file_json[cmd]["commandResponses"]["SUCCESS"]["show ip int brief"])

```

A network engineer must collect information from the network using Cisco DNA Center APIs. The script must query for the devices with 'platformId' 'C9540-x' and then send commands to be executed. Which process is automated by the Python script?

- A. results gathering of the show version and show ip int brief commands
- B. output of show ip int brief command on devices of type C9500-40X
- C. execution information of the show version and show ip int brief commands
- D. list of executed commands on C9500-40X and the information of show ip int brief command

Correct Answer: B

Section:

QUESTION 16

Refer to the exhibit.

```
diff --git a/ciscoaxl/axl.py b/ciscoaxl/axl.py
index bc7727e..d66ef4d 100644
--- a/ciscoaxl/axl.py
+++ b/ciscoaxl/axl.py
@@ -99,7 +99,7 @@ class axl(object):
     :return: result dictionary
     """
     try:
-         return self.client.executeSQLUpdate(query)
+         return self.client.executeSQLUpdate(query) ['return']
     except Fault as e:
         return e

diff --git a/setup.py b/setup.py
index df79ef4..1470b05 100644
--- a/setup.py
+++ b/setup.py
@@ -5,7 +5,7 @@ with open("README.md", "r") as fh:

setup(
    name="ciscoaxl",
-   version="0.14",
+   version="0.141",
    author="User 1",
    author_email="user1@example.com",
    description="Cisco CUCM AXL Library. Simple to use.",
```



Which two files are being edited in the unified diff? (Choose two.)

- A. README.md
- B. setup.py
- C. axl.py
- D. ciscoaxl.py
- E. index.py

Correct Answer: B, C

Section:

QUESTION 17

In test-driven development, what are two of the green bar patterns? (Choose two.)

- A. another test
- B. break
- C. triangulate
- D. starter test
- E. fake it

Correct Answer: C, E

Section:

Explanation:

Reference: <https://www.cs.uic.edu/~i442/Patterns%20for%20TDD.pdf>

QUESTION 18

In the test-driven development model, what is changed after a test fails?

- A. schedule
- B. project requirements
- C. code
- D. test

Correct Answer: C

Section:

Explanation:

Reference: <https://www.guru99.com/test-driven-development.html#:~:text=In%20simple%20terms%2C%20test%20cases,code%20simple%20and%20bug%2Dfree>

QUESTION 19

What is a benefit of test-driven development?

- A. strict adherence to product requirements
- B. faster releases that have minimal features
- C. early customer involvement
- D. increased code quality

Correct Answer: A

Section:

QUESTION 20

Which two statements describe the advantages of using a version control system? (Choose two.)

- A. It allows for branching and merging so that different tasks are worked on in isolation before they are merged into a feature or master branch.
- B. It provides tooling to automate application builds and infrastructure provisioning.
- C. It allows multiple engineers to work against the same code and configuration files and manage differences and conflicts.
- D. It provides a system to track User Stories and allocate to backlogs.
- E. It allows developers to write effective unit tests.

Correct Answer: A, C

Section:

QUESTION 21

What are two advantages of version control software? (Choose two.)

- A. It supports tracking and comparison of changes in binary format files.



- B. It allows new team members to access the current code and history.
- C. It supports comparisons between revisions of source code files.
- D. It provides wiki collaboration software for documentation.
- E. It allows old versions of packaged applications to be hosted on the Internet.

Correct Answer: A, B

Section:

QUESTION 22

Before which process is code review performed when version control is used?

- A. checkout of code
- B. merge of code
- C. committing code
- D. branching code

Correct Answer: B

Section:

QUESTION 23

What is an advantage of a version control system?

- A. facilitates resolving conflicts when merging code
- B. ensures that unit tests are written
- C. prevents over-writing code or configuration files
- D. forces the practice of trunk-based development

Correct Answer: A

Section:

QUESTION 24

Refer to the exhibit.



```
json_string = """
{
    "researcher": {
        "name": "Ford Perfect",
        "species": "Betelgeusian",
        "relatives": [
            {
                "name": "Zaphod Beeblebrox",
                "species": "Betelgeusian"
            }
        ]
    }
}
"""

my_json = json.loads(json_string)
```

Which Python data structure does my_json contain?

- A. map
- B. list
- C. json
- D. dict

Correct Answer: D

Section:

Explanation:

Reference: <https://stackoverflow.com/questions/34764979/loading-python-string-with-u-as-json?noredirect=1&lq=1>

QUESTION 25

When a Cisco IOS XE networking device is configured using RESTCONF, what is the default data-encoding method?

- A. JSON
- B. YAML
- C. XML
- D. x-form-encoding

Correct Answer: C

Section:

QUESTION 26

Refer to the exhibit.



```
<books>
  <science>
    <biology>10.00</biology>
    <geology>9.00</geology>
    <chemistry>8.00</chemistry>
  </science>
  <math>
    <calculus>20.00</calculus>
    <algebra>12.00</algebra>
  </math>
</books>
```



Which JSON is equivalent to the XML-encoded data?

```
A. [ {
  "books": {
    "science": {
      "biology": "10.00",
      "geology": "9.00",
      "chemistry": "8.00"
    },
    "math": {
      "calculus": "20.00",
      "algebra": "12.00"
    }
  }
}
```

```
B. {
  "books": {
    "science": {
      "biology": "10.00",
      "geology": "9.00",
      "chemistry": "8.00"
    },
    "math": {
      "calculus": "20.00",
      "algebra": "12.00"
    }
  }
}
```



```
C. {
  "books": [
    "science": {
      "biology": "10.00",
      "geology": "9.00",
      "chemistry": "8.00"
    },
    "math": {
      "calculus": "20.00",
      "algebra": "12.00"
    }
  ]
}
```

```
D. {
  "books": [
    "science", {
      "biology": "10.00",
      "geology": "9.00",
      "chemistry": "8.00"
    },
    "math", {
      "calculus": "20.00",
      "algebra": "12.00"
    }
  ]
}
```



- A. Option A
- B. Option B
- C. Option C
- D. Option D

Correct Answer: C

Section:

Explanation:

Reference: <https://www.guru99.com/json-vs-xml-difference.html>

QUESTION 27

FILL BLANK Fill in the blanks to complete the Python script to request a service ticket using the APIC-EM REST API for the user "devnetuser".

```
import requests import json
controller = 'devnetapi.cisco.com/sandbox/apic_em'
url = "https://" + controller + "api/va/ticket"
payload = {'username': '_____', 'password': '370940885'} header = {'Content-type': 'application.json'}
response = _____.post(url, data=json.dumps(payload), \ headers= _____, verify=False) r_json = response.json() print(r_json)
ticket = r_json["response"]["serviceTicket"] print(ticket)
```

A.

Correct Answer: A

Section:

Explanation:

Answer: A

Explanation:

devnetuser requests header

Reference: <https://developer.cisco.com/docs/apic-em/#!hello-world>

QUESTION 28

Which two statements about JSON and XML are true? (Choose two.)

- A. The syntax of JSON contains tags, elements, and attributes.
- B. XML objects are collections of key-value pairs.
- C. JSON objects are collections of key-value pairs.
- D. JSON arrays are an unordered set of key-value pairs.
- E. The syntax of XML contains tags, elements, and attributes.

Correct Answer: C, E

Section:

Explanation:

devnetuser requests header

Reference: <https://developer.cisco.com/docs/apic-em/Whello-world>

QUESTION 29

Which two statements about JSON and XML are true? (Choose two.)



- A. Functions ensure that a developer understands the inner logic contained before using them as part of a script or application.
- B. Functions create the implementation of secret and encrypted algorithms
- C. Functions allow problems to be split into simpler, smaller groups, and reduce code repetition, which makes the code easier to read.
- D. Functions store mutable values within a script or application.

Correct Answer: C

Section:

QUESTION 30

Refer to the exhibit.

```
$ diff -u5 fish.py cat.py
--- fish.py      2020-01-02 09:41:02.840000000 +0100
+++ cat.py      2020-01-02 09:41:06.8859999800 +0100
@@ -160,11 +160,12 @@

     @single_request_timeout.setter
     def single_request_timeout(self, value):
         """The timeout (seconds) for a single HTTP REST API request."""
         check_type(value, int, optional=True)
-         assert value is None or value > 0
+         if value is not None and value <= 0:
+             raise ValueError("single_request_timeout must be positive integer")
         self._single_request_timeout = value

     @property
     def wait_on_rate_limit(self)
         """Automatic rate-limit handling.
```

The output of a unified diff when comparing two versions of a Python script is shown. Which two "single_request_timeout()" functions are defined in fish.py and cat.py? (Choose two.)

A.

```
file: cat.py
160
161     @single_request_timeout.setter
162     def single_request_timeout(self, value):
163         """The timeout (seconds) for a single HTTP REST API request."""
164         check_type(value, int, optional=True)
165         assert value is None or value > 0
166         if value is not None and value <= 0:
167             raise ValueError("single_request_timeout must be positive integer")
168         self._single_request_timeout = value
169
```

B.

file: fish.py

```
160
161 @single_request_timeout.setter
162 def single_request_timeout(self, value):
163     """The timeout (seconds) for a single HTTP REST API request."""
164     check_type(value, int, optional=True)
165     assert value is None or value > 0
166     self._single_request_timeout = value
167
```

C.

file: cat.py

```
160
161 @single_request_timeout.setter
162 def single_request_timeout(self, value):
163     """The timeout (seconds) for a single HTTP REST API request."""
164     check_type(value, int, optional=True)
165     if value is not None and value <= 0:
166         raise ValueError("single_request_timeout must be positive integer")
167     self._single_request_timeout = value
168
169
```

D.

file: fish.py

```
160
161 @single_request_timeout.setter
162 def single_request_timeout(self, value):
163     """The timeout (seconds) for a single HTTP REST API request."""
164     check_type(value, int, optional=True)
165     self._single_request_timeout = value
```

E.

```
file: cat.py
172
173 @single_request_timeout.setter
174 def single_request_timeout(self, value):
175     """The timeout (seconds) for a single HTTP REST API request."""
176     check_type(value, int, optional=True)
177     if value is not None and value <= 0:
178         raise ValueError("single_request_timeout must be positive integer")
179     self._single_request_timeout = value
180
```

Correct Answer: A, B

Section:

QUESTION 31

What is a benefit of organizing code into modules?

- A. reduces the length of code
- B. enables code to be multifunctional
- C. enables the reuse of code
- D. improves overall performance

Correct Answer: C

Section:

QUESTION 32

What is a benefit of organizing code into modules?

- A. enables the code to be broken down into layers
- B. improves collaboration of the development team
- C. makes it easier to deal with large and complex systems
- D. enables the inclusion of more programming languages in the code

Correct Answer: B

Section:

QUESTION 33

What is the Git command to delete a local branch named "experiment" without a warning?

- A. git branch -rm experiment
- B. git branch -n experiment
- C. git branch -f experiment
- D. git branch -D experiment

Correct Answer: D



Section:

Explanation:

Reference: <https://www.atlassian.com/git/tutorials/using-branches>

QUESTION 34

What is the outcome of executing this command? `git clone ssh:/john@example.com/path/to/my-project.git`

- A. creates a local copy of a repository called "my-project"
- B. initiates a new Git repository called "my-project"
- C. creates a copy of a branch called "my-project"
- D. creates a new branch called "my-project"

Correct Answer: A

Section:

Explanation:

Reference: <https://www.atlassian.com/git/tutorials/setting-up-a-repository/git-clone>

QUESTION 35

Which action does the Git command `git merge` allow the developer to perform?

- A. Combine multiple sequences of commits into one unified history
- B. Push changes to the remote repository
- C. Create, list, rename, and delete branches
- D. Switch between branches



Correct Answer: A

Section:

Explanation:

Reference: <https://www.atlassian.com/git/tutorials/using-branches/git-merge>

QUESTION 36

How does a developer create and switch to a new branch called "my-bug-fix" to develop a product fix?

- A. `git checkout -b my-bug-fix`
- B. `git branch -b my-bug-fix`
- C. `git branch my-bug-fix`
- D. `git checkout my-bug-fix`

Correct Answer: A

Section:

QUESTION 37

A developer needs to prepare the file `README.md` in the working tree for the next commit operation using Git. Which command needs to be used to accomplish this?

- A. `git -a README.md`

- B. git add README.md
- C. git add README.md staging
- D. git commit README.md

Correct Answer: B

Section:

Explanation:

Reference: <https://teamtreehouse.com/community/committing-the-readmemd-file-to-repository>

QUESTION 38

A developer is reviewing a code that was written by a colleague. It runs fine, but there are many lines of code to do a seemingly simple task repeatedly. Which action organizes the code?

- A. Refactor the code by removing any unnecessary tests.
- B. Reverse engineer and rewrite the code logic.
- C. Using functions, rewrite any pieces of code that are repeated.
- D. Modify the code to use loops.

Correct Answer: C

Section:

QUESTION 39

Which REST architectural constraint indicates that no client context should be stored on the server between requests?

- A. cacheable
- B. stateless
- C. uniform interface
- D. client-server

Correct Answer: B

Section:

Explanation:

Reference: <https://developer.cisco.com/docs/nx-os/#!representational-state-transfer-rest> Topic 3, Cisco Platforms and Development

QUESTION 40

Which platform has an API that can be used to obtain a list of vulnerable software on user devices?

- A. Cisco Umbrella
- B. Cisco Firepower
- C. Cisco Identity Services Engine
- D. Cisco Advanced Malware Protection

Correct Answer: D

Section:

QUESTION 41

Which two items are Cisco DevNet resources? (Choose two.)

- A. TAC Support
- B. Software Research
- C. API Documentation
- D. Bitbucket
- E. Sandbox

Correct Answer: C, E

Section:

Explanation:

Reference: <https://developer.cisco.com/>

QUESTION 42

FILL BLANK Fill in the blanks to complete the Python script to update the Webex Teams membership of a room using the Python requests library.

```
import requests
url = "https://api.ciscospark.com/v1/memberships/
Y2lzY29zcGFyazov379971079INISVAvOTJiM2RkOWEtNjc1ZC00YTQxLTljNDEtMmFiZGY4OWY0NGY0OjExNzJkNmYwL TjIyZMtMTFIOS1iOWI3LWVmMjg3MTJhYTgzNw" my_token = "AbCdEf123456"
payload = {"\n\nisModerator\n": true\n}" headers = {
'Authorization': 'Bearer' + my_token,
'Content-Type': 'application/json'
}
response = requests._____ ("PATCH", url, headers=_____, data = _____ )
print(response.text.encode('utf8'))
```

A.

Correct Answer: A

Section:

Explanation:

Answer: A

Explanation:

```
response = requests.request("PATCH", url, headers= headers, data = payload ) print(response.text.encode('utf8'))
```

QUESTION 43

While developing a real-time VoIP application on a Cisco Webex Teams platform, users report that their voice gets chopped or parts of the conversation drops out. Which network constraint is impacting the application?

- A. jitter
- B. capacity
- C. delay
- D. latency

Correct Answer: A

Section:

QUESTION 44

FILL BLANK



Refer to the exhibit.

List Rooms

List rooms.

The `title` of the room for 1:1 rooms will be the display name of the other person.

By default, lists rooms to which the authenticated user belongs.

Long result sets will be split into [pages](#).

GET `/v1/rooms`

Query Parameters

Name	Description
<code>teamId</code> string	List rooms associated with a team, by ID.
<code>type</code> string	List rooms by type. <i>Possible values: direct, group</i>
<code>sortBy</code> string	Sort results. <i>Possible values: id, lastactivity, created</i>
<code>max</code> number	Limit the maximum number of rooms in the response. Default: <code>100</code>

Fill in the blank to complete the query parameter and value so that the result set is returned in reverse chronological order (most recent first) based on when messages were posted to those rooms. HTTP GET `/v1/rooms`

A.

Correct Answer: A

Section:

Explanation:

Answer: A

Explanation:

GET/v1/rooms{?teamId,type,sortBy,max}

Reference: <https://developer.webex.com/docs/api/v1/rooms/list-rooms>

QUESTION 45

A company has written a script that creates a log bundle from the Cisco DNA Center every day. The script runs without error and the log bundles are produced. However, when the script is run during business hours, people report poor voice quality of phone calls. What explains this behavior?

- A. The script is written in a low-level programming language where there is no memory safety. This causes a buffer overflow and disruption on the network.
- B. The speed and duplex settings in Cisco DNA Center are set incorrectly, which causes the transfer to be too slow.
- C. The script is running in the Voice VLAN and causes delays and jitter in the subnet.
- D. Generating the logs causes the CPU on the network controller to spike, which causes delays in forwarding the voice IP packets.

Correct Answer: B

Section:

QUESTION 46

FILL BLANK

Fill in the blanks to complete the statement.

Cisco DNA Center provides the capability to send an HTTP _____ request to the API endpoint https://DNA-C_API_ADDRESS/api/v1/network-device/ and receive the network _____ list in _____ format.

A.

Correct Answer: A

Section:

Explanation:

Answer: A

Explanation:

authentication parameter json

QUESTION 47

FILL BLANK

Fill in the blanks to complete the Python script to retrieve a list of network devices using the Cisco DNA Center API.

```
my_token=
'eyJ0eXAiOiJKV1QiLCJhbGciOiJIUzI1NiJ9.eyJzdWUiOiI1ZDE0OWZkMjhlZTY2
MmQ3NGM5YzE5ZTIiLCJmYzI6ImV4cCI6MTU3MjM3ODE5MCwidXNlcm5hbWUiOiJraX
N370940885.zhK5LPQd501ZUpZi0IH_qrgOXtIINbxSFFF7JOEtRIs'
import requests
url = "https://myDNAServer/dna/intent/api/v1/network-device" payload = {}
headers = {'x-auth-token': my_token}
response = requests.request(_____, url,
headers = _____, data = _____) print(response.text.encode('utf8'))
```

A.

Correct Answer: A

Section:

Explanation:

Answer: A

Explanation:

```
response = requests.request( method , url, headers = headers, data = request.get_data ) print(response.text.encode('utf8'))
```

Reference: https://www.programcreek.com/python/example/64946/flask.request.get_data

QUESTION 48

Refer to the exhibit.

Given the API documentation for the UCS SDK Python class, UcsHandle, which code snippet creates a handle instance?

```
class ucsm sdk . ucshandle . UcsHandle ( ip , username , password , port = None , secure = None , proxy = None )  
  
Bases: ucsm sdk . ucsession . UcsSession \[source\]  
  
UcsHandle class is the user interface point for any Ucs related communication.  
  
Parameters:   
• ip ( str ) – The IP or Hostname of the UCS Server  
• username ( str ) – The username as configured on the UCS Server  
• password ( str ) – The password as configured on the UCS Server  
• port ( int or None ) – The port number to be used during connection  
• secure ( bool or None ) – True for secure connection, otherwise False  
• proxy ( str ) – The proxy object to be used to connect
```

- A. `#!/usr/bin/env python3`
`from ucsm sdk.ucshandle import UcsHandle`
`handle = UcsHandle("10.1.2.254", "admin", "password",`
`port="443", secure=True)`
- B. `#!/usr/bin/env python3`
`from ucsm sdk.ucshandle import UcsHandle`
`handle = UcsHandle(ip="10.1.2.254", username="admin",`
`password="password", port=443, secure=True)`
- C. `#!/usr/bin/env python3`
`from ucsm sdk.ucshandle import UcsHandle`
`handle = UcsHandle("10.1.2.254", "admin", "password",`
`port="443", secure=1)`
- D. `#!/usr/bin/env python3`
`import ucsm sdk.ucshandle.UcsHandle`
`handle = UcsHandle("10.1.2.254", "admin", "password",`
`port="443", secure=1)`

- A. Option A
B. Option B
C. Option C

D. Option D

Correct Answer: A

Section:

Explanation:

Reference: <https://www.ciscolive.Com/c/dam/r/ciscolive/us/docs/2016/pdf/LTRINI%202020-LG.pdf>

QUESTION 49

Refer to the exhibits.

For CLI commands that support XML, the `clid()` method returns JSON output. An exception is thrown when XML is not used. Executes CLI commands. Takes CLI command string and returns show command output in a JSON form.

“

Note: The “clid” API can be useful when searching the output of show commands using JSON tools as shown in the example.

PYTHON

Example:

```
>>> import json
>>> from cli import *
>>> jversion = json.loads(clid("show
version"))
>>> jversion['bios_ver_str']
'08.06'
```

Arguments:

- `cmd`: Single CLI command or a batch of CLI commands. Delimiter for multiple CLI commands is a space followed by a semicolon. Configuration commands must be in a fully qualified form.

Returns:

- `string`: JSON-formatted output of show commands.

```

>>> from cli import *
>>> import json

>>>
>>> cli('configure terminal ; interface loopback 5 ; no shut')
''
>>> intflist=json.loads(clid('show interface brief'))
>>> i=0
>>> while i < len (intflist['TABLE_interface']['ROW_interface']):
...     intf=intflist['TABLE_interface']['ROW_interface'][i]
...     i=i+1
...     if intf['state'] == 'up':
...         print intf['interface']

```

The Python interpreter and the Cisco Python SDK are available by default in the Cisco NX-OS Software. The SDK documentation shows how the clid() API can be used when working with JSON and XML. What are two effects of running the script? (Choose two.)

- A. configure interface loopback 5
- B. show details for the TABLE interface
- C. issue shutdown on interface loopback 5
- D. show only the interfaces in the up status
- E. show only the interfaces in admin shut status



Correct Answer: A, D

Section:

Explanation:

Reference:

https://www.cisco.com/c/en/us/td/docs/switches/datacenter/nexus9000/sw/7-x/programmability/guide/b_Cisco_Nexus_9000_Series_NX-OS_Programmability_Guide_7x/Python_API.html

QUESTION 50

What are two key capabilities of Cisco Finesse? (Choose two.)

- A. Agents access Finesse from a browser without needing to install or configure anything on the client machine.
- B. An OpenDNS utility is preconfigured and ready to use on Finesse.
- C. Gadget containers provide a seamless experience in a single user interface.
- D. Finesse automatically collects telemetry data.
- E. Finesse includes an RPC API that enables the development of custom gadgets.

Correct Answer: A, C

Section:

QUESTION 51

Which two statements are true about Cisco UCS Manager, Cisco UCS Director, or Cisco Intersight APIs? (Choose two.)

- A. UCS Manager uses JSON to encode API interactions and utilizes Base64-encoded credentials in the HTTP header for authentication.
- B. UCS Director API interactions can be XML- or JSON-encoded and require an API key in the HTTP header for authentication.
- C. Cisco Intersight uses XML to encode API interactions and requires an API key pair for authentication.
- D. UCS Manager API interactions are XML-encoded and require a cookie in the method for authentication.
- E. Cisco Intersight API interactions can be encoded in XML or JSON and require an API key in the HTTP header for authentication.

Correct Answer: B, D

Section:

Explanation:

Reference: https://www.cisco.com/c/en/us/td/docs/unified_computing/ucs/ucs-director/rest-api-getting-started-guide/6-5/cisco-ucs-director-REST-API-getting-started-65.htmlhttps://www.cisco.com/c/en/us/td/docs/unified_computing/ucs/sw/api/b_ucs_api_book.pdf

QUESTION 52

Which model-driven programmability protocol does Cisco IOS XE Software support?

- A. gNMI
- B. SOAP
- C. SSH
- D. CORBA

Correct Answer: A

Section:

Explanation:

Reference: https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/prog/configuration/1610/b_1610_programmability_cg/gnmi_protocol.html

QUESTION 53

What operation is performed with YANG model-driven programmability in NX-OS?

- A. configure a device with native and OpenConfig-based models
- B. bootstrap a device that has a factory-default configuration
- C. send CLI commands to a device and retrieve output in JSON format
- D. run Linux commands natively on the device

Correct Answer: A

Section:

Explanation:

Reference: <https://www.cisco.com/c/en/us/products/collateral/switches/nexus-9000-series-switches/white-paper-c11-741518.html>

QUESTION 54

What are two benefits of model-driven programmability? (Choose two.)

- A. easier to design, deploy, and manage APIs
- B. single choice of transport, protocol, and encoding



- C. models decoupled from transport, protocol, and encoding
- D. model-based, structured, and human friendly
- E. model-driven APIs for abstraction and simplification

Correct Answer: C, E

Section:

Explanation:

Reference: <https://www.ciscolive.com/c/dam/r/ciscolive/emea/docs/2018/pdf/BRKSPG-2303.pdf>

QUESTION 55

What is a benefit of model-driven programmability?

- A. It provides a programmatic and standards-based way of writing configurations to any network device.
- B. By modeling data, it ensures that vast quantities of data are usable for monitoring.
- C. It simplifies management and operations by decoupling the networking hardware from its control mechanism.
- D. It addresses the static architecture of traditional networks being decentralized and complex.

Correct Answer: A

Section:

Explanation:

Reference: <https://developer.cisco.com/site/ios-xe/>

QUESTION 56

Which type of HTTP method is used by the Meraki and Webex Teams APIs to send webhook notifications?

- A. HTTP POST
- B. HTTP GET
- C. HTTP HEAD
- D. HTTP PUT

Correct Answer: A

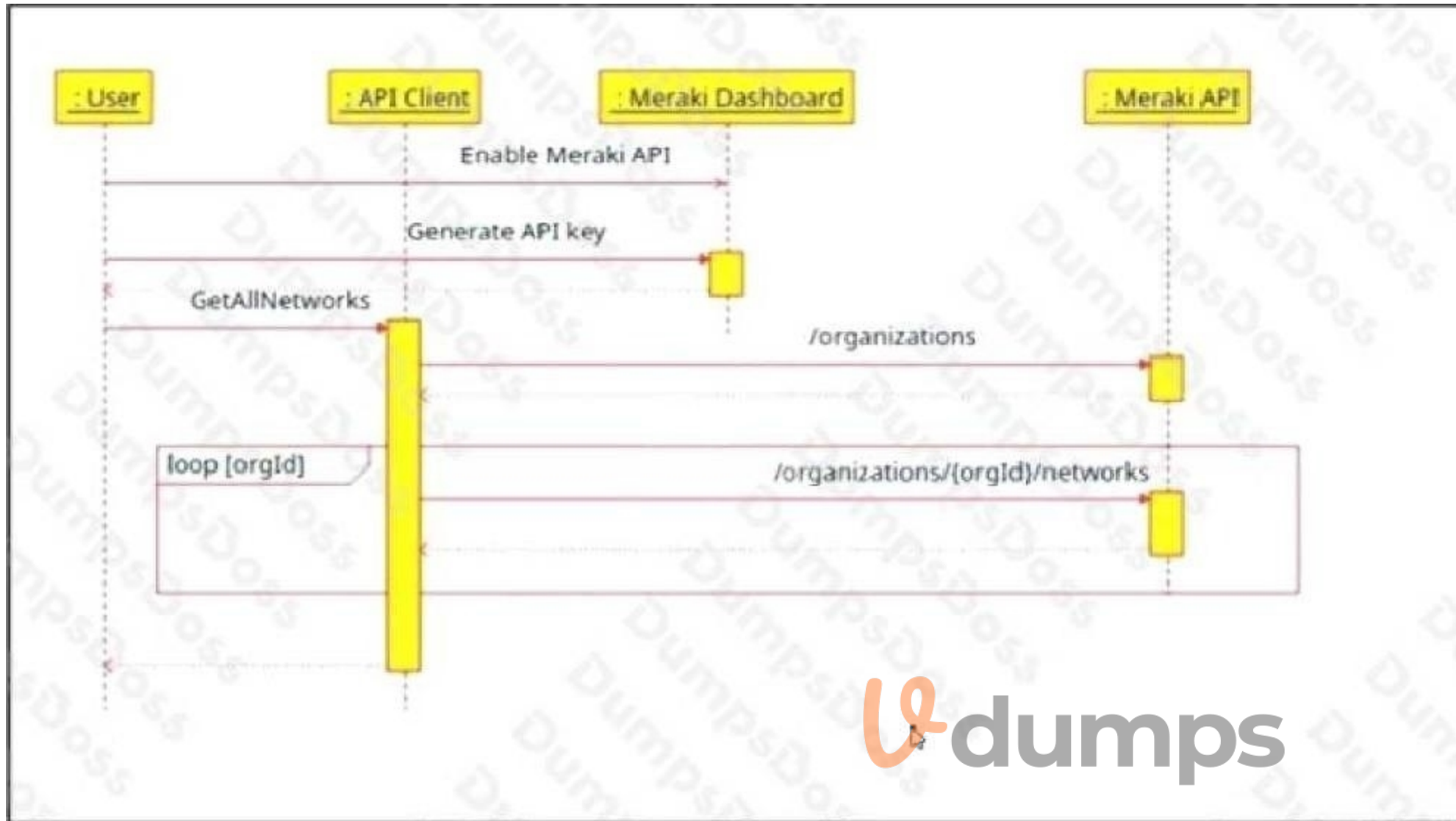
Section:

Explanation:

Reference: <https://meraki.cisco.com/blog/tag/alerts/>

QUESTION 57





Refer to the exhibit. The Cisco Meraki API manages two organizations. In each organization, two independent networks are defined. How many calls to the `/organizations/{orgId}/networks` endpoint will be run parallel by the `GetAllNetworks` function of the API client?

- A. 0
- B. 1
- C. 2
- D. 4

Correct Answer: C

Section:

QUESTION 58

Refer to the exhibit.


```

$ pyang -f tree Cisco-IOS-XE-native.yang
module: Cisco-IOS-XE-native
  +--rw native
    +--rw logging
      +--rw monitor|
        +--rw severity? logging-level-type

$ curl --insecure -v -X PATCH \
  "https://ios-xe-mgmt-latest.cisco.com:9443/restconf/data/Cisco-IOS-XE-native:native" \
  -H 'Authorization: Basic ZGV2ZWxvcGVyOkMxc2NvMTIzNDU=' -H 'Accept: application/yang-data+json' \
  -H 'Content-Type: application/yang-data+json' \
  -d '{ "Cisco-IOS-XE-native:native" : { "logging" : { "monitor" : { "severity" : "alerts" }} } }'
> ...
< ...
< HTTP/1.1 204 No Content

```

The definition of the YANG module and a RESTCONF query sent to a Cisco IOS XE device is shown. Why does the RESTCONF interface respond with a 204 status code?

- A. The query retrieved the logging severity level.
- B. The query updated the logging severity level or created it if not present on the device.
- C. The query failed at retrieving the logging severity level.
- D. The query failed to set the logging severity level due to an invalid path.

Correct Answer: B

Section:

Explanation:

Reference: https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/prog/configuration/1611/b_1611_programmability_cg/restconf_programmable_interface.html

QUESTION 59

What is a requirement when authenticating a RESTCONF API session with a router that runs Cisco IOS XE Software?

- A. No authentication is required.
- B. OAuth must be used.
- C. A token must be retrieved and the associated string must be embedded in the X-Auth-Token header.
- D. Basic authentication must be used.

Correct Answer: D

Section:

QUESTION 60

Which API must an engineer use to change a netmask on a Cisco IOS XE device?

- A. Meraki
- B. SD-WAN
- C. RESTCONF/YANG



D. DNAC

Correct Answer: C

Section:

QUESTION 61

A developer creates a script that configured multiple Cisco IOS XE devices in a corporate infrastructure. The internal test environment is unavailable, and no maintenance window is available to test on a low-priority production environment.

Which resource is used to test the code before it is applied to the production environment?

- A. Code Exchange
- B. Cisco Support
- C. Cisco DevNet Learning Labs
- D. Cisco DevNet Sandbox

Correct Answer: D

Section:

Explanation:

Reference: <https://developer.cisco.com/site/sandbox/>

QUESTION 62

Which tool is used to block all traffic to the domain by using a single API call?

- A. Cisco Firepower
- B. Cisco AMP
- C. Cisco Umbrella
- D. Cisco ISE

Correct Answer: A

Section:

Explanation:

Topic 4, Application Deployment and Security

QUESTION 63

Refer to the exhibit.

```
docker run -p 3000:5000 f877cbf2ff33
```

A process running on the host wants to access the service running inside this Docker container. Which port or ports are used to make a connection?

- A. only outbound connections between 3000 and 5000 are possible
- B. port 3000
- C. any port between 3000 and 5000
- D. port 5000

Correct Answer: B

Section:



QUESTION 64

What are two security benefits of a Docker-based application? (Choose two.)

- A. natively secures access to secrets that are used by the running application
- B. guarantees container images are secured and free of vulnerabilities
- C. easier to patch because Docker containers include only dependencies that the application requires
- D. prevents information leakage occurring when unhandled exceptions are returned in HTTP responses
- E. allows for separation of applications that traditionally run on the same host

Correct Answer: A, B

Section:

QUESTION 65

A local Docker alpine image has been created with an image ID of a391665405fe and tagged as "latest". Which command creates a running container based on the tagged image, with the container port 8080 bound to port 80 on the host?

- A. docker build -p 8080:80 alpine:latest
- B. docker exec -p 8080:80 alpine:latest
- C. docker start -p 8080:80 alpine:latest
- D. docker run -p 8080:80 alpine:latest

Correct Answer: D

Section:

QUESTION 66

Refer to the exhibit.

```
# base image
FROM alpine

# Install python and pip
RUN apk add --update py2-pip

# Install python modules needed by the python app
COPY requirements.txt /usr/src/app/
RUN pip install --no-cache-dir -r /usr/src/app/requirements.txt

#copy local files for the app to run
COPY app.py /usr/src/app/
COPY templates/index.html /usr/src/app/templates/

EXPOSE 8080

#run the application
CMD ["python", "/usr/src/app/app.py"]
```



Which function does the EXPOSE line perform when building an image from this Dockerfile?

- A. Local port 8080 of the container that launched with this docker image is accessible from co-hosted containers and external clients.
- B. Local port 8080 is not reachable at all because no IP address is specified along with the EXPOSE command of the Dockerfile.
- C. Local port 8080 is accessible from other containers running on the same docker host as the container that launched with this docker image.
- D. Local port 8080 of the container that launched with this docker image is accessible to external clients.

Correct Answer: C

Section:

QUESTION 67

Which two elements are foundational principles of DevOps? (Choose two.)

- A. organizing cross-functional teams over organizational silos
- B. designing applications as microservices
- C. encouraging containers for the deployment of applications
- D. automating over documenting
- E. optimizing the cost of infrastructures

Correct Answer: A, D

Section:

QUESTION 68

Which platform is run directly on top of a hypervisor?

- A. bare metal systems
- B. virtual machines
- C. containers
- D. applications

Correct Answer: B

Section:

QUESTION 69

What are two characteristics of Bare Metal environments that are related to application deployment? (Choose two.)

- A. specifically designed for container-based workloads
- B. suitable for legacy applications that do not support virtualization
- C. provides workloads with access to hardware features
- D. not compatible with other cloud services such as PaaS or SaaS offerings
- E. provides the hypervisor to host virtual servers

Correct Answer: C, E

Section:

QUESTION 70

A new application is being developed that must be hardware independent. The application includes an administrative component which is accessed using a Windows desktop GUI. Installation and management of the



environment must be fully automated. Which application deployment type meets the requirements?

- A. virtual machine
- B. virtual Python environment
- C. container
- D. bare metal

Correct Answer: C

Section:

QUESTION 71

Refer to the exhibit.



```
#!/bin/bash
read ndir
while [ -d "$ndir" ]
do
cd $ndir
done
mkdir $ndir
```



What is the action of the Bash script that is shown?

- A. For all directories in the current folder, the script goes into the directory and makes a new directory.
- B. The script waits until input is entered. If the directory exists, the script goes into it until there is no directory with the same name, then it creates a new directory.
- C. The script waits until input is entered, then it goes into the directory entered and creates a new directory with the same name.
- D. The script goes into the directory called "\$ndir" and makes a new directory called "\$ndir".

Correct Answer: B

Section:

QUESTION 72

When using the Bash shell, how is the output of the devnet command saved to a file named "output.txt"?

- A. devnet > output.txt
- B. devnet | output.txt
- C. devnet < output.txt
- D. devnet & output.txt

Correct Answer: A

Section:

Explanation:

Reference: <https://askubuntu.com/questions/420981/how-do-i-save-terminal-output-to-a-file>

QUESTION 73

FILL BLANK

Correct Answer: A

Section:

Explanation:

Answer: A

Explanation:

```
TARGET_DIR=/usr/local/certs
for f in '/usr/local/certs'; do
echo $f openssl sha -sha256 -r < $f | cut -f1 -cl' "
```



QUESTION 74

After a project is migrated to a new codebase, the "old_project" directory must be deleted. This directory has multiple readonly files, and it must be deleted recursively without prompting for confirmation. Which Bash command must be used?

- A. rmdir -p old_project
- B. rm -rf old_project
- C. rm -r old_project
- D. rmdir old_project

Correct Answer: B

Section:

QUESTION 75

What is a benefit of using edge computing in an IoT implementation?

- A. high speed in data processing
- B. low network design complexity
- C. low cost in network design
- D. high availability for network components

Correct Answer: D

Section:

QUESTION 76

What is the benefit of edge computing?

- A. It reduces network latency by moving processing closer to the data source.
- B. It reduces data velocity from devices or other data sources.
- C. It simplifies security as devices and processing are brought closer together.
- D. It removes the need for centralized data processing.

Correct Answer: A

Section:

Explanation:

Reference: <https://blogs.cisco.com/networking/time-to-get-serious-about-edge-computing>

QUESTION 77

Which type of threat occurs when an attacker can send hostile data to an interpreter within an application?

- A. sensitive data exposure
- B. broken authentication
- C. cross-site scripting
- D. injection

Correct Answer: D

Section:

Explanation:

Reference: https://owasp.org/www-project-top-ten/OWASP_Top_Ten_2017/Top_10-2017_A1-Injection

QUESTION 78

A company is looking for a cloud deployment which will only use the on-premise infrastructure, is user self-service, and is easy to scale. Which cloud solution should be selected for these requirements?

- A. multi
- B. private
- C. hybrid
- D. public

Correct Answer: B

Section:

QUESTION 79

Refer to the exhibit.





Which OWASP threat does this example demonstrate?

- A. broken access control
- B. cross-site scripting
- C. SQL injection
- D. man-in-the-middle

Correct Answer: B

Section:

Explanation:

Reference: <https://owasp.org/www-chapter-coimbatore/assets/files/Web%20Application%20Security%20Adithyan%20AK.pdf>

QUESTION 80

What should a CI/CD pipeline aim to achieve?

- A. to require minimal manual interaction
- B. to allow manual testing before deployment
- C. to support new deployments on a fixed monthly schedule
- D. to provide a documented process for feedback

Correct Answer: B

Section:

Explanation:

QUESTION 81

A function `my_func()` returns True when it executes normally. Which Python snippet tests `my_func()`?



A.

```
def test_func(self):  
    self.assertTrue(my_func())
```

B.

```
def test_func(self):  
    self.assertFalse(my_func())
```

C.

```
def test_func(self):  
    self.assertEqual(my_func(), '{true}')
```

D.

```
def test_func(self):  
    self.assertRaises(my_func())
```

- A. Option A
- B. Option B
- C. Option C
- D. Option D

Correct Answer: C

Section:

Explanation:

Reference: https://github.com/django/django/blob/master/tests/auth_tests/test_mixins.py

QUESTION 82

What are two roles of an artifact repository in a CI/CD pipeline? (Choose two.)

- A. stores files needed and generated during the build process

- B. provides traceable, searchable, and manageable binary files
- C. is required for CI/CD pipelines executed on a public cloud infrastructure
- D. allows for comparing and merging changes in the source code
- E. is required for managing open source software

Correct Answer: A, B

Section:

Explanation:

Topic 5, Infrastructure and Automation

QUESTION 83

Which product provides network controller-level management features?

- A. Cisco ISE
- B. Cisco DNA Center
- C. Cisco UCS Manager
- D. Cisco NX-OS

Correct Answer: B

Section:

Explanation:

Reference: <https://www.cisco.com/c/en/us/products/cloud-systems-management/index.html>



QUESTION 84

What is the purpose of the Cisco VIRL software tool?

- A. to verify configurations against compliance standards
- B. to automate API workflows
- C. to simulate and model networks
- D. to test performance of an application

Correct Answer: C

Section:

Explanation:

Reference: <https://www.speaknetworks.com/cisco-virl-better-gns3/>

QUESTION 85

What are two advantages of the Model-View-Controller software design pattern? (Choose two.)

- A. allows for multiple views of the same model
- B. separates responsibilities of the code, which makes future modifications easier
- C. simplifies network automation
- D. makes code easier to deploy using CI/CD pipelines
- E. reduces the need for error handling

Correct Answer: A, B

Section:

QUESTION 86

```
module ietf-ip {
  namespace "urn:ietf:params:xml:ns:yang:ietf-ip";
  prefix ip;
  import ietf-interfaces {
    prefix if;
  }
  augment "/if:interfaces/if:interface" {
    container ipv4 {
      leaf enabled {
        type boolean;
        default true;
      }
      list address {
        key "ip";
        leaf ip {
          type inet:ipv4-address-no-zone;
        }
      }
      choice subnet {
        mandatory true;
        leaf prefix-length {
          type uint8 {
            range "0..32";
          }
        }
        leaf netmask {
          type yang:dotted-quad;
        }
      }
    }
  }
}

module ietf-interfaces {
  namespace "urn:ietf:params:xml:ns:yang:ietf-interfaces";
  prefix if;
  typedef interface-ref {
    type leafref {
      path "/if:interfaces/if:interface/if:name";
    }
  }
  container interfaces {
    list interface {
      key "name";
      leaf name {
        type string;
      }
      leaf description {
        type string;
      }
      leaf type {
        type identityref {
          base interface-type;
        }
        mandatory true;
      }
      leaf enabled {
        type boolean;
        default "true";
      }
    }
  }
}
```

Refer to the exhibit. Which JSON snippet configures a new interface according to YANG model?

```
A. "ietf-interfaces": {  
  interface: {  
    "name": "loopback100",  
    "enabled": true,  
    "ietf-ip": {  
      ipv4: {  
        "address" [  
          {  
            "ip": "10.255.254.1",  
            "netmask": "255.255.255.0"  
          } ] ] } }  
    }  
  }  
}
```

```
B. " interface" {  
  "name": "Loopback100",  
  "enabled": true,  
  "ipv4": {  
    "address" [  
      {  
        "ip": "10.255.254.1",  
        "netmask": "255.255.255.0"  
      } ] ]  
  }  
}
```

```
C. "ietf-interfaces:interface": {  
  "name": "Loopback100",  
  "enabled": true,  
  "ietf-ip:ipv4:address": [  
    {  
      "ip": "10.255.254.1",  
      "netmask": "255.255.255.0"  
    } ]  
}
```

```
D. "ietf-interfaces:interface": {  
  "name": "Loopback100",  
  "enabled": true,  
  "ietf-ip:ipv4": {  
    "address": [  
      {  
        "ip": "10.255.254.1",  
        "netmask": "255.255.255.0"  
      } ] ]  
  }  
}
```



- A. Option A
- B. Option B
- C. Option C
- D. Option D

Correct Answer: A

Section:

QUESTION 87

Refer to the exhibit.

```
module ex-ethernet {
  namespace "http://example.com/ethernet";
  prefix "eth";
  import ietf-interfaces {
    prefix if;
  }
  augment "/if:interfaces/if:interface" {
    when "if:type = 'ethernetCsmacd'";
    container ethernet {
      must "../if:location" {
        description
          "An ethernet interface must specify the physical location of the ethernet hardware.";
      }
      choice transmission-params {
        case auto {
          leaf auto-negotiate {
            type empty;
          }
        }
        case manual {
          leaf duplex {
            type enumeration {
              enum "half";
              enum "full";
            }
          }
          leaf speed {
            type enumeration {
              enum "10Mb";
              enum "100Mb";
              enum "1Gb";
              enum "10Gb";
            }
          }
        }
      }
    }
  } // other ethernet specific params...
}
```

- A. interface management
- B. BGP
- C. OpenFlow
- D. topology

Correct Answer: A

Section:

Explanation:

Reference: <https://github.com/CiscoDevNet/dnav3-code/blob/master/intro-mdp/yang/models/Cisco-IOS-XE-interfaces-oper.yang>

QUESTION 88

Which CI/CD tool is an automation tool used to build, test, and deploy software?

- A. Git
- B. Gradle
- C. Nagios
- D. Jenkins

Correct Answer: D

Section:

Explanation:

Reference: <https://www.infoworld.com/article/3271126/what-is-cicd-continuous-integration-and-continuous-delivery-explained.html>

QUESTION 89

An automation script fails to connect to an internal server exactly 1 out of 2 times it is executed. This behavior is seen from different clients. Which networking device must be at fault?

- A. load balancer
- B. laptop on which the script is running
- C. switch
- D. router



Correct Answer: A

Section:

QUESTION 90

What are two advantages of YANG-based approaches for infrastructure automation? (Choose two.)

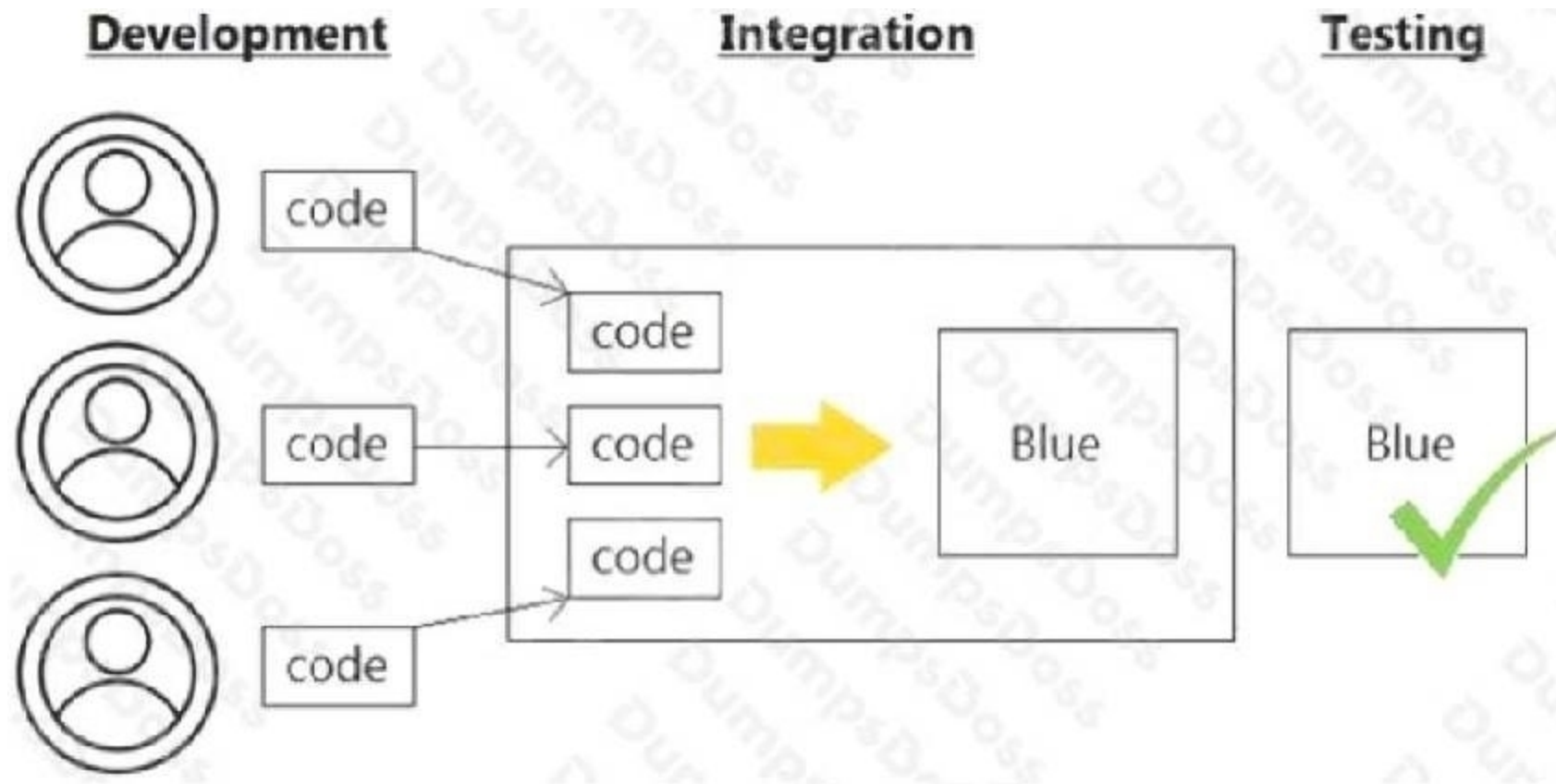
- A. multi-platform vendor abstraction
- B. compiles to executables that run on network devices
- C. designed to reflect networking concepts
- D. directly maps to JavaScript
- E. command line driven interface

Correct Answer: A, C

Section:

QUESTION 91

Refer to the exhibit.



Which infrastructure automation method is shown?

- A. CI/CD pipeline
- B. Lean
- C. Agile
- D. Waterfall

Correct Answer: A

Section:

QUESTION 92

DRAG DROP

Drag and drop the capability on the left onto the Cisco compute management platform that supports the capability on the right.

Select and Place:



Multi-Cloud automation and orchestration platform for Cisco and third-party servers, networks, storage, and converged infrastructure.	UCS Manager
Software as a Service Platform that enables Cisco infrastructure management, automation and orchestration from anywhere.	UCS Director
Embedded software that enables Cisco server, fabric, and storage provisioning.	Intersight

Correct Answer:

	Embedded software that enables Cisco server, fabric, and storage provisioning.
	Multi-Cloud automation and orchestration platform for Cisco and third-party servers, networks, storage, and converged infrastructure.
	Software as a Service Platform that enables Cisco infrastructure management, automation and orchestration from anywhere.

Section:

Explanation:

QUESTION 93

DRAG DROP

Drag and drop the Docker file instructions from the left onto the correct descriptions on the right. Not all options are used.

Select and Place:

FROM ubuntu:12.04

VOLUME["/var/www", "/var/log/apache2", "/etc/apache2"]

RUN apt-get update && apt-get install -y -force-yes apache2

ENTRYPOINT["/usr/sbin/apache2ctl", "-D", "FOREGROUND"]

EXPOSE 1521

informs Docker that the container listens on the specified network port(s) at runtime

creates a mount point with the specified name

configures a container that runs as an executable

must be the first instruction in the Docker file

Correct Answer:

[Empty box]

[Empty box]

RUN apt-get update && apt-get install -y -force-yes apache2

[Empty box]

[Empty box]

EXPOSE 1521

VOLUME["/var/www", "/var/log/apache2", "/etc/apache2"]

ENTRYPOINT["/usr/sbin/apache2ctl", "-D", "FOREGROUND"]

FROM ubuntu:12.04

Section:

Explanation:

QUESTION 94

DRAG DROP

Drag and drop the code from the bottom onto the box where the code is missing in the Bash script to complete the missing assignments.

Select and Place:

```
#!/bin/bash
```

```
 = 'date +%b-%d-%y'  
 = /home/usr/path/backup- $\$$ BACKUPTIME.tar.gz  
 = /home/usr/path/data_folder
```

```
tar -cpzf  $\$$ DESTINATION  $\$$ SOURCEFOLDER
```

BACKUPTIME

SOURCEFOLDER

DESTINATION

Correct Answer:

```
#!/bin/bash
```

```
BACKUPTIME = 'date +%b-%d-%y'  
DESTINATION = /home/usr/path/backup- $\$$ BACKUPTIME.tar.gz  
SOURCEFOLDER = /home/usr/path/data_folder
```

```
tar -cpzf  $\$$ DESTINATION  $\$$ SOURCEFOLDER
```

Section:

Explanation:

QUESTION 95

DRAG DROP

Drag and drop the Bash commands from the left onto the correct actions on the right.

Select and Place:

cd~	list files in directory sorted by edited date descending
cd/	create directory
is -l	copy file
is -t	change directory to user \$HOME
cp	create environment variable
cp -r	change directory to file system root
mv	move file
touch	create file
mkdir	copy directory
export	list files in directory with details

Correct Answer:

	is -t
	mkdir
	cp
	cd~
	export
	cd/
	mv
	touch
	cp -r
	is -l

Vdumps

Section:

Explanation:

QUESTION 96

DRAG DROP

Refer to the exhibit.

```
#!/bin/bash
<item 1>='date +%b-%d-%y'

<item 2>=/home/usr/path/backup-$BACKUPTIME.tar.gz

<item 3>=/home/usr/path/data_folder

tar -cpzf $DESTINATION $SOURCEFOLDER
```

Drag and drop the variables from the left onto the item numbers on the right that match the missing assignments in the exhibit.

Select and Place:

BACKUPTIME	<item 1>
SOURCEFOLDER	<item 2>
DESTINATION	<item 3>

Correct Answer:

	BACKUPTIME
	DESTINATION
	SOURCEFOLDER

Section:

Explanation:

Reference: <https://medium.com/@fotios.floros/linux-backup-script-1722cc9c2bf6> (use tar in order to create your backup file)

QUESTION 97

DRAG DROP

Drag and drop the descriptions from the left onto the correct application deployment models on the right.

Select and Place:

- provides a low-latency compute capability close to the data source
- environment where you pay only for the resources that you consume
- offers a self-service, elastic compute environment from a dedicated set of physical resources
- provides an approach for overflow traffic to burst out to meet peak demands
- shared compute platform that is offered over the Internet

Public Cloud

Private Cloud

Hybrid Cloud

Edge Computing

Correct Answer:

Blank boxes for the correct answer placement.

Public Cloud
environment where you pay only for the resources that you consume
shared compute platform that is offered over the Internet

Private Cloud
offers a self-service, elastic compute environment from a dedicated set of physical resources

Hybrid Cloud
provides an approach for overflow traffic to burst out to meet peak demands

Edge Computing
provides a low-latency compute capability close to the data source

Section:

Explanation:

QUESTION 98

DRAG DROP

Drag and drop elements of the RESTCONF Protocol stack from the left onto the correct descriptors on the right. Not all elements on the left are used.

Select and Place:

<data>	content
XML or JSON	operations
SSH	transport
<rpc>, <rpc-reply>	
GET, POST, PUT, PATCH, DELETE	
HTTPS	

Correct Answer:

<data>	XML or JSON
	GET, POST, PUT, PATCH, DELETE
SSH	HTTPS
<rpc>, <rpc-reply>	

Section:

Explanation:

Reference: https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/prog/configuration/169/b_169_programmability_cg/restconf_programmable_interface.html

QUESTION 99

DRAG DROP

Drag and drop the types of management from the left onto the levels at which they are performed on the right.

Select and Place:

user and programmability interaction through the use of lower level APIs	Controller level
user and programmability interaction through the use of Northbound APIs	
iterate over a list of devices	Device level
configure features with YANG models	

Correct Answer:

	Controller level
	user and programmability interaction through the use of Northbound APIs
	configure features with YANG models
	Device level
	user and programmability interaction through the use of lower level APIs
	iterate over a list of devices

Section:

Explanation:

QUESTION 100

DRAG DROP

Drag and drop the network component names from the left onto the correct descriptions on the right. Not all options are used.

Select and Place:

DNS server	contains a database of public IP addresses and their associated hostnames and often resolves or translates those names to IP addresses, as requested
firewall	enforces a set of rules about which data packets are allowed to enter or leave a network
reverse proxy	distributes network and application traffic across different servers
load balancer	retrieves resources on behalf of a client from one or more servers, then returns resources to the client, thus appearing as if they originated from the service itself
NAT gateway	

Correct Answer:

	DNS server
	firewall
	load balancer
	reverse proxy
NAT gateway	

Section:

Explanation:

QUESTION 101

DRAG DROP

Drag and drop the network automation interfaces from the left onto the transport protocols that they support on the right.

Select and Place:

SSH

HTTP

HTTP/2

HTTPS

gRPC

NETCONF

RESTCONF

Correct Answer:

Empty answer input field

gRPC

HTTP/2

NETCONF

SSH

RESTCONF

HTTP

HTTPS

Section:
Explanation:

QUESTION 102
DRAG DROP

Drag and drop the functionalities from the left onto the correct networking devices on the right.

Select and Place:

ports are different broadcast domain by default	Firewall
ports can be in the same broadcast domain	Load Balancer
uses traffic inspection to make routing decisions	Router
blocks networks traffic by default	Switch

Correct Answer:

	blocks networks traffic by default
	uses traffic inspection to make routing decisions
	ports are different broadcast domain by default
	ports can be in the same broadcast domain

Section:

Explanation:

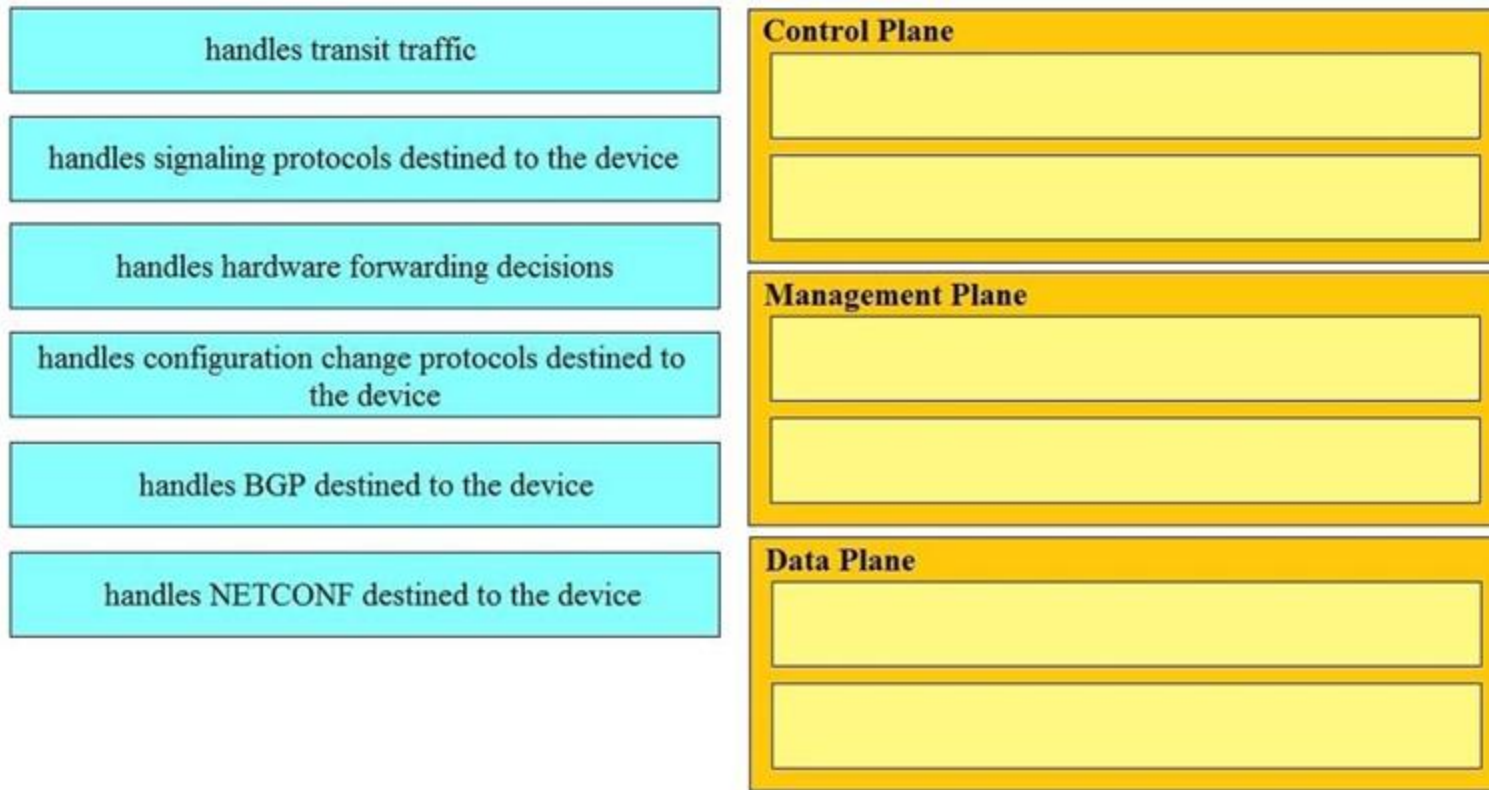
Reference: <https://geek-university.com/ccna/broadcast-domain-explained/>

QUESTION 103

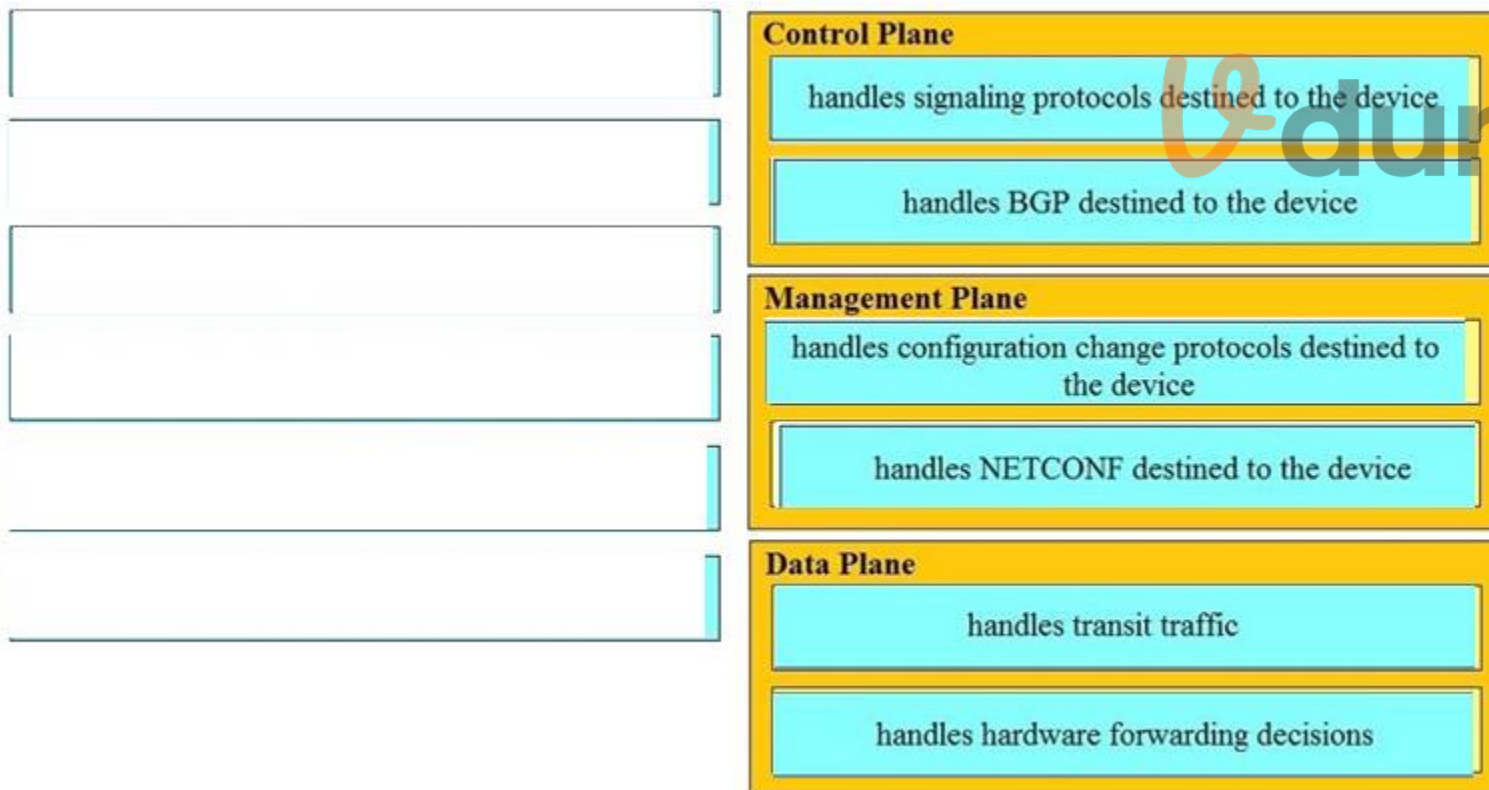
DRAG DROP

Drag and drop the function on the left onto the type of plane that handles the function on the right.

Select and Place:



Correct Answer:



Section:

Explanation:

QUESTION 104

What is a functionality of the Waterfall method as compared to the Agile method for software development?

- A. Waterfall increases agility to implement faster while Agile promotes reliability.

- B. A phase begins after the previous phase has ended in Waterfall while Agile phases run in parallel.
- C. Customers get feedback during the process in Waterfall while they can see the result at the end in Agile.
- D. Requirements can be updated in Waterfall while in Agile it should be gathered in the beginning.

Correct Answer: B

Section:

QUESTION 105

What is a benefit of using functions in the code for the development process?

- A. better user experience in the end product
- B. improves code performance
- C. easier to compile the code
- D. faster code development

Correct Answer: D

Section:

QUESTION 106

What is the difference between YAML and JSON data structure?

- A. YAML uses spaces; JSON uses parentheses
- B. YAML uses indentation; JSON uses brackets and braces
- C. YAML uses brackets and braces; JSON uses indentation
- D. YAML uses parentheses; JSON uses spaces



Correct Answer: A

Section:

QUESTION 107

A developer is working on a feature for a new application. The changes in the existing branch named 'feat00304' must be integrated into a single commit with the current working primary branch named 'prodapp411926287'. Which git command must be used?

- A. git rebase --merge feat00304
- B. git merge --squash feat00304
- C. git push --rebase feat00304
- D. git checkout --squash feat00304

Correct Answer: B

Section:

QUESTION 108

A file that already exists in a local repository is updated. Which command must be executed to ensure that the changes in the file are included in the next Git commit?

- A. git update
- B. git merge
- C. git add

D. git rebase

Correct Answer: A

Section:

QUESTION 109

Into which type of Python data structure should common data formats be parsed?

- A. sequence
- B. set
- C. dictionary
- D. list

Correct Answer: C

Section:

QUESTION 110

Several teams at a company are developing a new CRM solution to track customer interactions with a goal of improving customer satisfaction and driving higher revenue. The proposed solution contains these components:

- MySQL database that stores data about customers
- HTML5 and JavaScript UI that runs on Apache
- REST API written in Python

What are two advantages of applying the MVC design pattern to the development of the solution? (Choose two.)

- A. to enable multiple views of the same data to be presented to different groups of users
- B. to provide separation between the view and the model by ensuring that all logic is separated out into the controller
- C. to ensure data consistency, which requires that changes to the view are also made to the model
- D. to ensure that only one instance of the data model can be created
- E. to provide only a single view of the data to ensure consistency

Correct Answer: B, D

Section:

QUESTION 111

Which HTTP code group is issued when a request is received successfully, understood, and processed?

- A. 2xx
- B. 3xx
- C. 4xx
- D. 5xx

Correct Answer: A

Section:

QUESTION 112

A developer creates a web application that receives a username and password and uses them to sync the credentials to other services through HTTPS. API keys to services are part of the configuration files of the application, but the credentials to the database that stores the synchronization logs are obtained through an external vault service. What is the security issue in this scenario?

- A. Communication between the application and the services is not encrypted.
- B. The database credentials should be stored in the configuration files so that they are secured on the same server.
- C. The API keys are stored in the configuration files but should be stored in the vault service.
- D. The synchronization logs should be encrypted and not stored in a relational database.

Correct Answer: A

Section:

QUESTION 113

What is a capability of an agentless configuration management system?

- A. It requires managed hosts to have an interpreter for a high-level language such as Python or Ruby.
- B. It requires managed hosts to connect to a centralized host to receive updated configurations.
- C. It uses compiled languages as the basis of the domain-specific language to interface with managed hosts.
- D. It uses existing protocols to interface with the managed host.

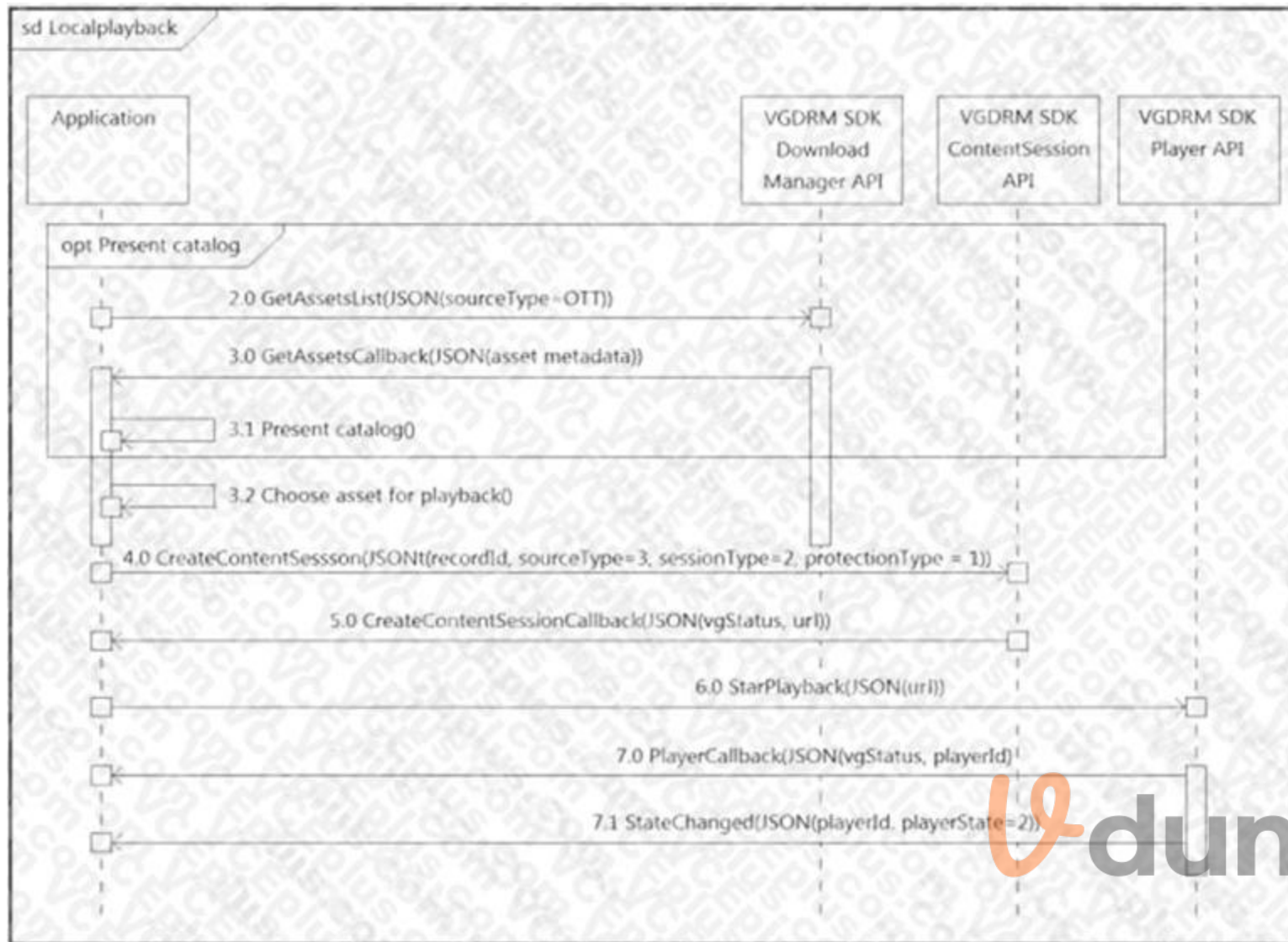
Correct Answer: D

Section:

QUESTION 114

Refer to the exhibit.





What do all the calls shown in the sequence diagram have in common?

- A. All
- B. All the calls are optional. the calls are asynchronous.
- C. All the calls are synchronous.
- D. All the calls depend on the catalog.

Correct Answer: D

Section:

QUESTION 115

Which application should be used to externally access all applications deployed in the same host machine with a single public IP address and port, when each application listens on different local ports?

- A. reverse proxy
- B. load balancer
- C. DNS
- D. firewall

Correct Answer: D

Section:

QUESTION 116

DRAG DROP

Drag and drop the code snippets from the bottom into the Python script to write API output to a csv file. Not all options are used.

Select and Place:

```
import unittest
import json
from apidogs import app

class TestsAPIDogs(unittest.TestCase):

    def setUp(self):
        self.app = app.test_client()

    # Check status response of API
    def test_status(self):
        resp = self.app.get('/dogs/all')
        status_code = response. 
        self.assertEqual(status_code, )

    # Check for content type is in application/json
    def test_content_type(self):
        resp = self.app.get('/dogs/all')
        self.assertEqual(resp. , 'application/json')

    def test_item_not_exist(self):
        resp = self.app.get('/dogs?id=)
        self.assertEqual(response.status_code, 404)

if name == ' main ':
    unittest.main()
```

403	content	status_code
200	none	content_type
	status	



Correct Answer:

```

import unittest
import json
from apidogs import app

class TestsAPIDogs(unittest.TestCase):

    def setUp(self):
        self.app = app.test_client()

    # Check status response of API
    def test_status(self):
        resp =self.app.get('/dogs/all')
        status_code = response. [ none ]
        self.assertEqual(status_code, [ 200 ] )

    # Check for content type is in application/json
    def test_content_type(self):
        resp =self.app.get('/dogs/all')
        self.assertEqual(resp. [ status_code ] , 'application/json')

    def test_item_not_exist(self):
        resp =self.app.get('/dogs?id=[ 403 ]')
        self.assertEqual(response.status_code, 404)

if name == ' main ':
    unittest.main()

```

[]

content

[]

[]

content_type

[]

status



Section:

Explanation:

QUESTION 117

DRAG DROP

```

GET getNetworkHttpServers
https://api.meraki.com/api/v0/networks/:networkId/httpServers
List the HTTP servers for a network

AUTHORIZATION
API Key

This request is using an authorization helper from collection Meraki Dashboard
API
HEADERS
Accept
*/*

```

Refer to the exhibit. A developer is creating a Python script to obtain a list of HTTP servers on a network named office_east by using the Cisco Meraki API. The request has these requirements:

- Must time out if the response is not received within 2 seconds.
- Must utilize client certificates and SSL certificate verification.
- Must utilize basic authentication that uses a username of admin and a password of cisco.
- Must save the response to an object named response.

Drag and drop the code snippets from the bottom onto the blanks in the code to meet the requirements. Not all options are used.

Select and Place:

```
import requests
from requests.auth import HTTPBasicAuth
network = 'office east'
url = 'https://api.meraki.com/api/v0/networks/{}/httpServers'.format (network)
[ ] = requests.get(url=url, headers={ 'Accept': '*/*'},
verify='/etc/pki/tls/certs/ca.pem',
timeout=[ ] ,
[ ] = ('/etc/pki/tls/certs/client.pem',
'/etc/pki/tls/certs/client.key'),
auth=[ ] ('admin', 'cisco'))
response.status_code
```

token	response	2
HTTPTokenAuth	HTTPBasicAuth	cert

Correct Answer:

```
import requests
from requests.auth import HTTPBasicAuth
network = 'office east'
url = 'https://api.meraki.com/api/v0/networks/{}/httpServers'.format (network)
[ response ] = requests.get(url=url, headers={ 'Accept': '*/*'},
verify='/etc/pki/tls/certs/ca.pem',
timeout=[ 2 ] ,
[ cert ] = ('/etc/pki/tls/certs/client.pem',
'/etc/pki/tls/certs/client.key'),
auth=[ HTTPBasicAuth ] ('admin', 'cisco'))
response.status_code
```

token	[]	[]
HTTPTokenAuth	[]	[]

Section:

Explanation:

Reference: <https://community.cisco.com/t5/networking-blogs/authenticating-rest-api-calls-to-dnac-getting-started/ba-p/3658058>

QUESTION 118

DRAG DROP

Drag and drop the code snippets from the bottom to the blanks in the code to complete the HTTP response. Not all options are used.

Select and Place:

```
Request URL: http://www.example.com/
: GET
: 200 OK
Remote Address: [2606:2800:220:1:248:1893:25c8:1946]:80
Referrer Policy: strict-origin-when-cross-origin
Response Headersview source
Accept-Range: bytes
Age: 396561
Cache-Control: max-age=604800
: gzip
Content-Length: 648
: text/html; charset=UTF-8
Date: Sat, 20 Nov 2020 20:49:34 GMT
Etag: "3147526947+ident"
Expires: Sat, 21 Nov 2020 20:49:34 GMT
Last-Modified: Thu, 17 Oct 2019 07:18:26 GMT
Server: ECS (dna/63AA)
Vary: Accept-Encoding
X-Cache: HIT

Request Headersview source
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,
image/avif,image/webp,image/apng,*/*;q=0.8,application/signed-exchange;v=b3;q=0.9
Accept-Encoding: gzip, deflate
Accept-Language: en-US,en;q=0.9
```

-
-
-
-
-
-
-



Correct Answer:

```
Request URL: http://www.example.com/
Request Method : GET
Status Code : 200 OK
Remote Address: [2606:2800:220:1:248:1893:25c8:1946]:80
Referrer Policy: strict-origin-when-cross-origin
Response Headersview source
Accept-Ranges: bytes
Age: 396561
Cache-Control: max-age=604800
Content-Type : gzip
Content-Length: 648
Content-Encoding : text/html; charset=UTF-8
Date: Sat, 20 Nov 2020 20:49:34 GMT
Etag: "3147526947+ident"
Expires: Sat, 21 Nov 2020 20:49:34 GMT
Last-Modified: Thu, 17 Oct 2019 07:18:26 GMT
Server: ECS (dna/63AA)
Vary: Accept-Encoding
X-Cache: HIT

Request Headersview source
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,
image/avif,image/webp,image/apng,*/*;q=0.8,application/signed-exchange;v=b3;q=0.9
Accept-Encoding: gzip, deflate
Accept-Language: en-US,en;q=0.9
```



Section:

Explanation:

QUESTION 119

Which solution reduces costs from MPLS, improves application performance, and simplifies operations?

- A. Cisco NSO
- B. Cisco SD-WAN
- C. Cisco ACI
- D. Cisco DNA Center

Correct Answer: B

Section:

Explanation:

QUESTION 120

A developer has experienced security issues with a previously developed application. The API offered by that application is open and without any constraints. During a recent attack, the application was overloaded with API requests. To address this issue, an API constraint is implemented to protect the application from future attacks or any sudden throttling. Which API constraint must the application developer implement in this situation?

- A. pagination
- B. rate limiting
- C. filtering

D. payload limiting

Correct Answer: B

Section:

Explanation:

QUESTION 121

A developer must test the performance and reliability of an application. After functional and load tests are run, the application crashes due to traffic spikes from users. Which type of API constraint must be implemented to maintain reliability?

- A. rate limiting
- B. pagination
- C. payload limits
- D. filtering

Correct Answer: A

Section:

Explanation:

QUESTION 122

A developer is working on a new feature in a branch named 'newfeat123456789' and the current working primary branch is named 'prim987654321'. The developer requires a merge commit during a fast forward merge for record-keeping purposes. Which Git command must be used?

- A. `git merge --no-ff newfeat123456789`
- B. `git commit --no-ff newfeat123456789`
- C. `git add --commit-ff newfeat123456789`
- D. `git reset --commit-ff newfeat123456789`

Correct Answer: A

Section:

Explanation:

QUESTION 123

A customer's cloud services must:

Migrate services to another data center on demand.

Save the operational state of the machine on demand.

Support Windows and Linux GUIs.

Maximize hardware utilization.

Which type of deployment meets these requirements?

- A. bare metal
- B. container
- C. virtual machine
- D. Kubernetes



Correct Answer: C

Section:

Explanation:

QUESTION 124

DRAG DROP

Drag and drop the code from the bottom onto the box where the code is missing in the Python script to complete a function to return all the clients on a network by using the Cisco Meraki Dashboard API. Not all options are used.

Select and Place:

```
import requests
import json
url = 'https://dashboard.meraki.com/api/v0/'
headers = {'': '0110c4e1b8a1',
           'Content-Type': ''}
orgs = json.loads(requests.get(url+'organizations', headers=headers).text)

for org in orgs:
    nets = json.loads(requests.get(url+'organizations/'+org['id']+'/networks',
                                  headers=headers).text)
    for net in nets:
        clients = json.loads(requests.get(
            url+'/'+'net['id']+'/'+'',
            headers=headers).text)
        for client in clients:
            print(client['ip'])
```

client	application/json
application/xml	clients
X-Cisco-Meraki-API-Key	networks
Authorization: Bearer	

Correct Answer:

```
import requests
import json
url = 'https://dashboard.meraki.com/api/v0/'
headers = {'X-Cisco-Meraki-API-Key': '0110c4e1b8a1',
           'Content-Type': 'application/json'}
orgs = json.loads(requests.get(url+'organizations', headers=headers).text)

for org in orgs:
    nets = json.loads(requests.get(url+'organizations/'+org['id']+'/networks',
                                   headers=headers).text)
    for net in nets:
        clients = json.loads(requests.get(
            url+'client/'+net['id']+'/networks',
            headers=headers).text)
        for client in clients:
            print(client['ip'])
```

application/xml	clients
Authorization: Bearer	

Section:
Explanation:

QUESTION 125
DRAG DROP



Devices

Get Device Count

Operation Id: `getDeviceCount`

Description: Returns the count of network devices based on the filter criteria by management IP address, mac address, hostname and location name

GET /dna/intent/api/v1/network-device/count

Request Parameters

Responses

Status: 200

The request was successful. The result is contained in the response body.

Schema Definition **Example Body**

```

CountResult
  response: integer
  version: string
  
```

Refer to the exhibit. Drag and drop the code snippets from the bottom onto the blanks in the code to construct a request to find the Cisco DNA Center switch count. Not all options are used.

Select and Place:

```

curl -L --request [ ] \
-- [ ] https://dna/intent/api/v1/network-device/[ ] \
--header '[ ] : application/json' \
--header 'Accept: application/json'
  
```

url network count

POST GET Content-Type

Correct Answer:

```

curl -L --request GET \
--url https://dna/intent/api/v1/network-device/count \
--header 'Content-Type: application/json' \
--header 'Accept: application/json'

```

network
 POST

Section:

Explanation:

QUESTION 126

DRAG DROP

class Native.Interface.FastEthernet

Bases: Entity

Class Hierarchy: Native Interface FastEthernet

This class represents configuration data.

FastEthernet IEEE 802.3

<p>name(key)</p> <p>type: str</p> <p>pattern: ([0-9]/([0-9]/([1-3][0-9] 4[0-8])[0-9])\([0-9]+)?</p>	<p>flowcontrol</p> <p>Configure flow operation</p> <p>type: Flowcontrol</p>
<p>description</p> <p>Interface specific description</p> <p>type: str</p> <p>pattern: *</p>	<p>isis</p> <p>IS-IS commands</p> <p>type: Isis</p>
	<p>keepalive</p> <p>Enable keepalive</p> <p>type: bool</p>
	<p>keepalive_settings</p> <p>type: KeepaliveSettings</p>

Refer to the exhibit. Drag and drop the code snippets from the bottom to the blanks in the code to enable keepalive for the FastEthernet 2/0 interface. Not all options are used.

Select and Place:

```
from ydk.services import CRUDService
from ydk.providers import NetconfServiceProvider as nc
from ydk.models.cisco ios xe import Cisco IOS XE native as model
ip = '10.10.20.48'
prtcl = 'ssh'
user = 'developer'
psw = 'P@s$W0rD'
port = 830
provider = nc(address=ip, port=port, username=user, password=psw, protocol=prtcl)
crud = CRUDService()
```

```
interface.name = '2/0'
```

```
if interface data:
    print('Keepalive is enabled.')
else:
    print('Keepalive is not enabled.')
```

```
interface_data = crud.update(provider, interface)
```

```
interface.keepalive = True
```

```
interface_data = crud.read(provider, interface)
```

```
interface = model.Native.Interface.FastEthernet()
```

```
interface.FastEthernet.keepalive_settings.keepalive =
```

```
interface = model.Native.Interface()
```

 **vdumps**

Correct Answer:

```
from ydk.services import CRUDService
from ydk.providers import NetconfServiceProvider as nc
from ydk.models.cisco ios xe import Cisco IOS XE native as model
ip = '10.10.20.48'
prctl = 'ssh'
user = 'developer'
psw = 'P@s$W0rD'
port = 830
provider = nc(address=ip, port=port, username=user, password=psw, protocol=prctl)
crud = CRUDService()

interface = model.Native.Interface.FastEthernet()

interface.name = '2/0'
interface.keepalive = True

interface_data = crud.read(provider, interface)

if interface_data:
    print('Keepalive is enabled.')
else:
    print('Keepalive is not enabled.')
```

```
interface_data = crud.update(provider, interface)

interface.FastEthernet.keepalive_settings.keepalive =

interface = model.Native.Interface()
```

Vdumps

Section:

Explanation:

QUESTION 127

```

module ietf-interface {
  namespace "urn:ietf:params:xml:ns:yang:ietf-interfaces";
  prefix if;
  import ietf-yang-types {
    prefix yang;
  }
  container interfaces-state {
    list interface {
      key "name";
      leaf name {
        type string;
      }
      leaf admin-status {
        type enumeration {
          enum up {
            value 1;
          }
          enum down {
            value 2;
          }
          enum testing {
            value 3;
          }
        }
      }
      leaf if-index {
        type int32 {
          range "1..2147483647"
        }
      }
      container statistics {
        leaf in-octets {
          type yang:counter64;
        }
        leaf in-unicast-pkts {
          type yang:counter64;
        }
      }
    }
  }
}

```

 **vdumps**

Refer to the exhibit. Which XML snippet has interface information that conforms to the YANG model?

A

```
<interfaces-state
xmlns="urn:ietf:params:xml:ns:yang:ietf-interfaces"
xmlns:if="urn:ietf:params:xml:ns:yang:ietf-interfaces">
  <interface name="GigabitEthernet1">
    <admin-status>1</admin-status>
    <if-index>1</if-index>
    <statistics>
      <in-octets>408164820</in-octets>
      <in-unicast-pkts>728061</in-unicast-pkts>
    </statistics>
  </interface>
</interfaces-state>
```

B

```
<interfaces-state
xmlns="urn:ietf:params:xml:ns:yang:ietf-interfaces"
xmlns:if="urn:ietf:params:xml:ns:yang:ietf-interfaces">
  <interface>
    <name>GigabitEthernet1</name>
    <admin-status>up</admin-status>
    <if-index>1</if-index>
    <in-octets>408164820</in-octets>
    <in-unicast-pkts>728061</in-unicast-pkts>
  </interface>
</interfaces-state>
```

C.

```
<interfaces-state
xmlns="urn:ietf:params:xml:ns:yang:ietf-interfaces"
xmlns:if="urn:ietf:params:xml:ns:yang:ietf-interfaces">
  <interface>
    <name>GigabitEthernet1</name>
    <admin-status>up</admin-status>
    <if-index>1</if-index>
    <statistics>
      <in-octets>408164820</in-octets>
      <in-unicast-pkts>728061</in-unicast-pkts>
    </statistics>
  </interface>
</interfaces-state>
```

D.

```
<interfaces-state
xmlns="urn:ietf:params:xml:ns:yang:ietf-interfaces"
xmlns:if="urn:ietf:params:xml:ns:yang:ietf-interfaces">
  <interface>
    <name>GigabitEthernet1</name>
    <admin-status>1</admin-status>>
    <if-index>1</if-index>
    <statistics>
      <in-octets>408164820</in-octets>
      <in-unicast-pkts>728061</in-unicast-pkts>
    </statistics>
  </interface>
</interfaces-state>
```

- A. Option A
- B. Option B
- C. Option C
- D. Option D

Correct Answer: A

Section:

QUESTION 128

A developer is attempting to retrieve all the messages from a Cisco Webex space. The server responds by sending the first 1,000 messages. The developer must make additional requests to retrieve the rest of the messages. Which API constraint is described in this scenario?

- A. payload limiting
- B. throttling
- C. pagination
- D. rate limiting

Correct Answer: C

Section:

Explanation:

<https://developer.atlassian.com/server/confluence/pagination-in-the-rest-api/>

QUESTION 129

Refer to the exhibit.

```
cd ~/development/project01
mkdir info
cd info
[REDACTED]
cp ./requirements.txt ~/Documents/backup/requirements.txt
```



A developer just finished testing a Python script and wants to save the list of packages and versions installed on the current machine. The developer must make sure that it will not cause any issues if tested on another device due to different library versions. Which line of code needs to be placed on the snippet where the code is missing?

- A. pip freeze 2> requirements.txt
- B. pip freeze > requirements.txt
- C. pip freeze => requirements.txt
- D. pip freeze | requirements.txt

Correct Answer: B

Section:

Explanation:

pip freeze requirements.txt ile ilgili görsel sonucu The most common command is pip freeze > requirements.txt , which records an environment's current package list into requirements.txt. If you want to install the dependencies in a virtual environment, create and activate that environment first, then use the Install from requirements.

QUESTION 130

A developer pushes an application to production. The application receives a webhook over HTTPS without a secret. The webhook information contains credentials to service in cleartext. When the information is received, it is stored in the database with an SHA-256 hash. Credentials to the database are accessed at runtime through the use of a vault service. While troubleshooting, the developer sets the logging to debug to view the message from the webhook. What is the security issue in this scenario?

- A. Database credentials should be accessed by using environment variables defined at runtime.
- B. During the transport of webhook messages, the credentials could be unencrypted and leaked.
- C. During logging, debugging should be disabled for the webhook message.
- D. Hashing the credentials in the database is not secure enough; the credentials should be encrypted.

Correct Answer: B

Section:

Explanation:

QUESTION 131

Refer to the exhibit.

```
HTTP Request
curl http://hello-api.info -v

HTTP Response
* Trying hello-app.info...
* TCP_NODELAY set
* Connected to hello-app.info (hello-app.info) port 80 (#0)
> GET / HTTP/1.1
> Host:hello-app.info
> User-Agent: curl/7.64.1
> Accept: */*
>
< HTTP/1.1 502 Bad Gateway
< Server: nginx/1.14.0 (Ubuntu)
< Date: Sat, 21 Nov 2020 11:09:54 GMT
< Content-Type: text/html
< Content-Length: 182
< Connection: keep-alive
```



A developer cannot reach the web application behind an NGINX load balancer. The developer sends a request to an application FQDN with cURL but gets an HTTP 502 response. Which action solves the problem?

- A. Fix errors in the server configuration, which is behind the load balancer.
- B. Bring up the load balancer to the active state.
- C. Fix errors in the cURL request sent by the client.
- D. Change the default gateway on the load balancer to an active one.

Correct Answer: A

Section:

Explanation:

The HyperText Transfer Protocol (HTTP) 502 Bad Gateway server error response code indicates that the server, while acting as a gateway or proxy, received an invalid response from the upstream server. [https://developer.mozilla.org/en-US/docs/Web/HTTP/Status/502#:~:text=The%20HyperText%20Transfer%20Protocol%20\(HTTP,response%20from%20the%20upstream%20server](https://developer.mozilla.org/en-US/docs/Web/HTTP/Status/502#:~:text=The%20HyperText%20Transfer%20Protocol%20(HTTP,response%20from%20the%20upstream%20server)

QUESTION 132

Which action do webhooks enable an application to perform?

- A. Increase the request rate limit.
- B. Populate the application with restricted data.
- C. Receive real-time data.
- D. Implement a push model.

Correct Answer: C

Section:

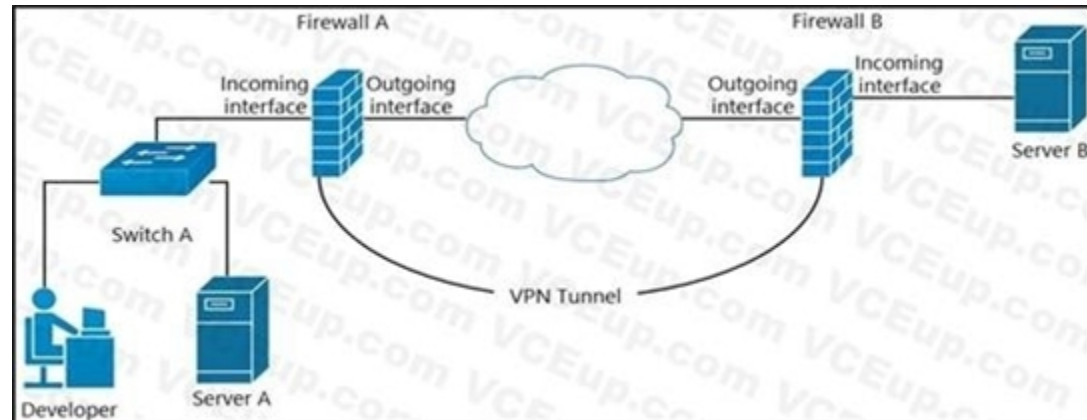
Explanation:

Simplifying the wording: Webhook enables the app to (push or receive real time) . The clients should receive real time but the app pushes.

Simplifying the wording: Webhook enables the app to (push or receive real time) . The clientsWebhooks enable applications to receive real-time data by providing a mechanism for oneapplication to send data to another as soon as an event happens. This is done through HTTPcallbacks, where an event in the source system triggers an HTTP POST request to a predefinedURL in the destination system. This allows the destination system to process the dataimmediately, ensuring real-time updates.

QUESTION 133

Refer to the exhibit.



Vdumps

A developer can access the TLS REST API on server A, but cannot access the API on server B. The developer can ping server B. When the developer performs a packet capture on the TLS REST API port on server B, the capture shows that the packet arrived and the server responded. What causes the issue?

- A. Port 80 is blocked on the outgoing interface of firewall B.
- B. Port 443 is blocked on the outgoing interface of firewall A.
- C. Port 443 is blocked on the incoming interface of firewall B.
- D. Port 80 is blocked on the incoming interface of firewall A.

Correct Answer: C

Section:

Explanation:

QUESTION 134

How are operations on REST APIs performed as compared to RPC APIs?

- A. In a REST API, operations are performed on an object (node) that is identified by a URL, but RPC APIs are operation-oriented.
- B. In a REST API, operations are performed on an external resource that is defined on the API, but the RCP APIs are resource-oriented.

- C. In a REST API, operations are performed on a platform that is identified by the URL, but RPC APIs are platform-oriented.
- D. In a REST API, operations are performed on an internal resource that is defined on the API, but RPC APIs are resource-oriented.

Correct Answer: A

Section:

Explanation:

REST APIs are designed around resources that are identified by URLs. Operations are performed on these resources using standard HTTP methods like GET, POST, PUT, and DELETE. In contrast, RPC (Remote Procedure Call) APIs are designed around actions or operations, where the focus is on invoking methods or functions rather than manipulating resources

QUESTION 135

Which HTTP error code series relates to redirection?

- A. 400
- B. 500
- C. 200
- D. 300

Correct Answer: D

Section:

Explanation:

1xx - Informational: The server has received the request and is continuing the process
2xx - Successful: The request was successful and the browser has received the expected information
3xx (Redirection): You have been redirected and the completion of the request requires further action
4xx (Client Error): The website or the page could not be reached, either the page is unavailable or the request contains bad syntax
5xx (Server Error): While the request appears to be valid, the server could not complete the request

QUESTION 136

What is a characteristic of the Cisco Finesse platform?

- A. Applications allow services to be invoked on a network triggered event.
- B. The platform provides a ready-to-go platform for HD video and audio conferencing.
- C. Applications are added to the platform from the desktop remotely.
- D. The platform includes an enterprise-class IM engine.

Correct Answer: A

Section:

Explanation:

A characteristic of the Cisco Finesse platform is that applications allow services to be invoked on a network triggered event. Cisco Finesse is a next-generation agent and supervisor desktop designed to provide a rich, browser-based experience for contact center agents and supervisors. It offers a flexible, open development platform that allows developers to build custom applications and integrations to meet the specific needs of their contact center. One of the key features of Cisco Finesse is the ability to trigger actions based on events within the contact center network, such as an incoming call or a change in the status of a customer's account. This allows developers to build applications that can react to real-time events and provide relevant information or services to agents as they handle customer interactions.

QUESTION 137

An engineer needs to retrieve a list of locally available Firepower Threat Defense upgrade packages by using the Firepower Management Center REST API. The engineer uses a GET request with the URL: /api/fmc_platform/v1/updates/upgradepackages/f413afeb-e6f6-75f4-9169-6d9bd49s625e What does "f413afeb-e6f6-75f4-9169-6d9bd49s625e" represent?

- A. container UUID
- B. package UUID

- C. domain UUID
- D. object UUID

Correct Answer: B

Section:

Explanation:

"GET upgradepackages Request Type: GET Description: Retrieves a list of locally available Firepower Threat Defense upgrade packages, including major upgrades, maintenances release upgrades, and hotfixes.

URL: /api/fmc_platform/v1/updates/upgradepackages URL for GET by ID: /api/fmc_platform/v1/updates/upgradepackages/{package_UUID}" Source:

https://www.cisco.com/c/en/us/td/docs/security/firepower/640/api/REST/Firepower_Management_Center_REST_API_Quick_Start_Guide_640/Objects_In_The_REST_API.html

QUESTION 138

What is a benefit of using a code review process in application development?

- A. accelerates the deployment of new features in an existing application
- B. provides version control during code development
- C. enables the quick deployment of new code
- D. eliminates common mistakes during development

Correct Answer: D

Section:

Explanation:

QUESTION 139

Which OWASP threat takes advantage of a web application that the user has already authenticated to execute an attack?

- A. phishing
- B. DoS
- C. brute force attack

Correct Answer: D

Section:

Explanation:

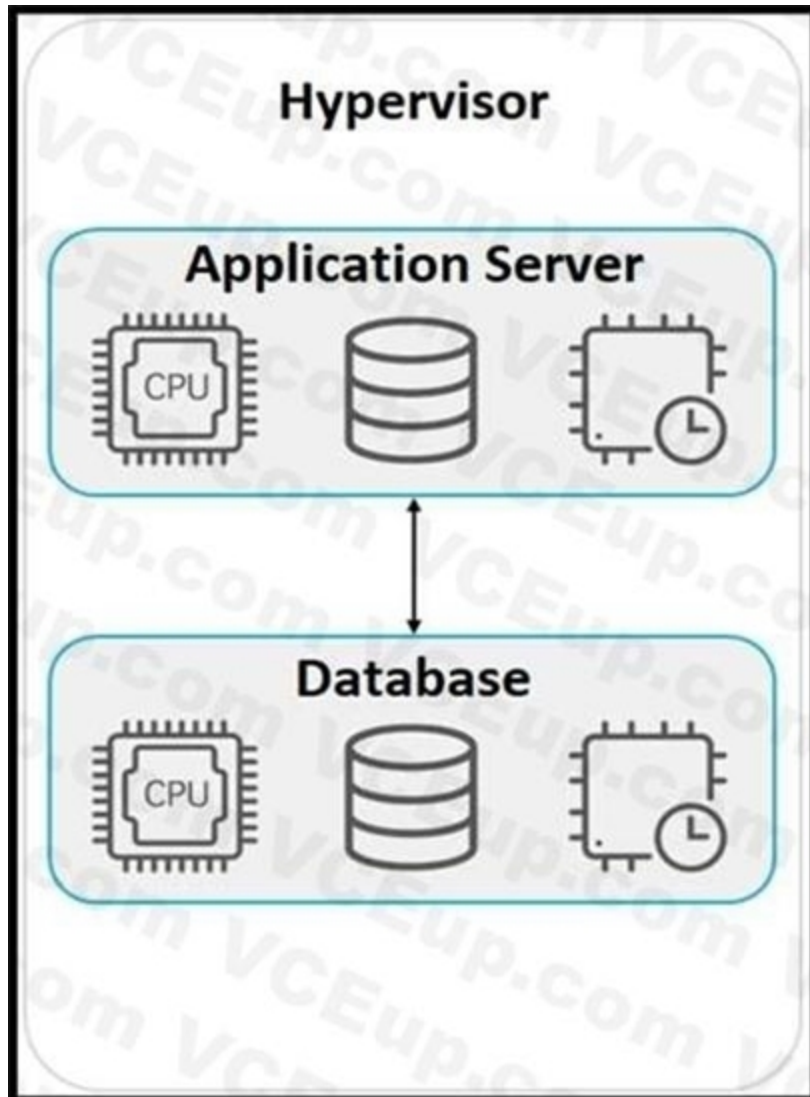
Cross-Site Request Forgery (CSRF) is an attack that forces an end user to execute unwanted actions on a web application in which they're currently authenticated.

<https://owasp.org/www-community/attacks/csrf>

QUESTION 140

Refer to the exhibit.





An application must be deployed on a server that has other applications installed. The server resources are to be allocated based on the deployment requirements. The OS for each application must be independent. Which type of deployment is used?

- A. hybrid
- B. virtual machines
- C. containers
- D. bare metal

Correct Answer: B

Section:

Explanation:

QUESTION 141

What is a benefit of a distributed version control system?

- A. encourages users to commit small pieces of work to the system more frequently
- B. ensures that all code meets minimum standards before being committed to the system
- C. allows users to work on the codebase even when not connected to the Internet
- D. ensures that all code is tested before being committed to the system

Correct Answer: C

Section:

Explanation:

Reference: <https://about.gitlab.com/topics/version-control/benefits-distributed-version-controlsystem/>

QUESTION 142

A company requires a new platform to store large volumes of log data that is generated in their assembly plant. The platform must be scalable, so the underlying technology must provide a path for fast deployment of new nodes for data and indexing? The data contains sensitive information, so specialist encryption tools must be used to secure the data. Which application deployment model meets the requirements?

- A. edge
- B. private cloud
- C. public cloud
- D. hybrid cloud

Correct Answer: D

Section:

Explanation:

A hybrid cloud combines the benefits of both a private cloud, which offers the ability to store sensitive data in a secure, dedicated environment, and a public cloud, which offers the ability to scale quickly and easily by deploying new nodes as needed. With a hybrid cloud deployment, you could use specialist encryption tools to secure the sensitive data in the private cloud, and then take advantage of the scalability and flexibility of the public cloud to handle the large volumes of log data.

QUESTION 143

What is a procedural component of CI/CD pipelines?

- A. Bundled artifacts must be generated.
- B. Every test must pass for the pipeline to continue its execution.
- C. Some tests fail without stopping the pipeline execution.
- D. The release label that identifies the build is optional.

Correct Answer: B

Section:

Explanation:

In a CI/CD (Continuous Integration/Continuous Deployment) pipeline, a procedural component is a specific step or action that is carried out in a specific order as part of the pipeline process. One of the procedural components of a CI/CD pipeline is that every test must pass in order for the pipeline to continue its execution. If any test fails, the pipeline will stop and the issue must be addressed before the pipeline can continue. This is an important procedural component of a CI/CD pipeline because it ensures that the code being deployed is of high quality and meets the necessary standards before it is released.

QUESTION 144

Which OWASP threat occurs when untrusted data is supplied as input to an interpreter as part of a command or query?

- A. broken authentication
- B. data exposure
- C. injection
- D. cross-site scripting

Correct Answer: C



Section:

Explanation:

QUESTION 145

Refer to the exhibit.

```
1 <routing xmlns="urn:ietf:params:xml:ns:yang:ietf-routing">
2   <routing-instance>
3     <name>default</name>
4     <description>default-vrf [read-only]</description>
5     <routing-protocols>
6       <routing-protocol>
7         <type xmlns:ospf="urn:ietf:params:xml:ns:yang:ietf-
*         ospf">ospf:ospfv2</type>
8         <name>100</name>
9         <ospf xmlns="urn:ietf:params:xml:ns:yang:ietf-ospf">
10          <instance>
11            <af xmlns:rt="urn:ietf:params:xml:ns:yang:ietf-
*            routing">rt:ipv4</af>
12            <router-id>1.1.1.1</router-id>
13            <nsr>
14              <enable>false</enable>
15            </nsr>
16            <auto-cost>
17              <enable>false</enable>
18            </auto-cost>
19            <redistribution
*            xmlns="urn:ietf:params:xml:ns:yang:cisco-ospf">
20              <rip/>
21            </redistribution>
22          </instance>
23        </ospf>
24      </routing-protocol>
25    </routing-protocols>
26  </routing-instance>
27 </routing>
```

What are two characteristics of the NETCONF response? (Choose two.)

- A. ospf is defined by the ietf-ospf module.
- B. ietf-ospf imports ietf-routing.
- C. redistribution is a module of type cisco-ospf.
- D. routing protocols is a list.
- E. The main module is routing.

Correct Answer: B, C

Section:

Explanation:

QUESTION 146

A business needs to create a simulated environment that mimics a production infrastructure to make changes to the OSPF process and analyze the impact. What should be used?

- A. Cisco VIRL / Cisco CML
- B. Cisco DevNet Sandbox labs
- C. pyATS
- D. Puppet

Correct Answer: A

Section:



Explanation:

<https://www.cisco.com/c/en/us/products/cloud-systems-management/modeling-labs/index.html>

QUESTION 147

What is a benefit of a CI/CD pipeline for infrastructure?

- A. removes manual errors
- B. enables manual steps
- C. removes the need for operations
- D. provides variety for deployments

Correct Answer: A

Section:

Explanation:

QUESTION 148

During which step of the CI/CD pipeline for infrastructure automation is code from multiple developers combined to compile and test different components?

- A. integration
- B. deployment
- C. development
- D. testing

Correct Answer: A

Section:

Explanation:



QUESTION 149

Refer to the exhibit.

```
1 import requests
2
3 url = "https://api.meraki.com/api/v0/organizations/{(organizationId)}/insight/
* monitoredMediaServers"
4
5 payload = {
6     "name": "Sample VoIP Provider",
7     "address": "123.123.123.1"
8 }
9 headers = {
10  'Accept': '**/*',
11  'Content-Type': 'application/json'
12 }
13
14 response = requests.request("POST", url, headers=headers, data=payload)
15
16 print(response.text.encode('utf8'))
```

Which workflow does the script automate?

- A. retrieves a media server that is being monitored
- B. updates a media server that is being monitored
- C. adds a media server to be monitored

D. deletes a media server that is being monitored

Correct Answer: C

Section:

Explanation:

QUESTION 150

Which two details are captured from the subnet mask? (Choose two.)

- A. portion of an IP address that refers to the subnet
- B. default gateway of the host
- C. unique number ID assigned to the host
- D. part of an IP address that refers to the host
- E. network connection of a host or interface

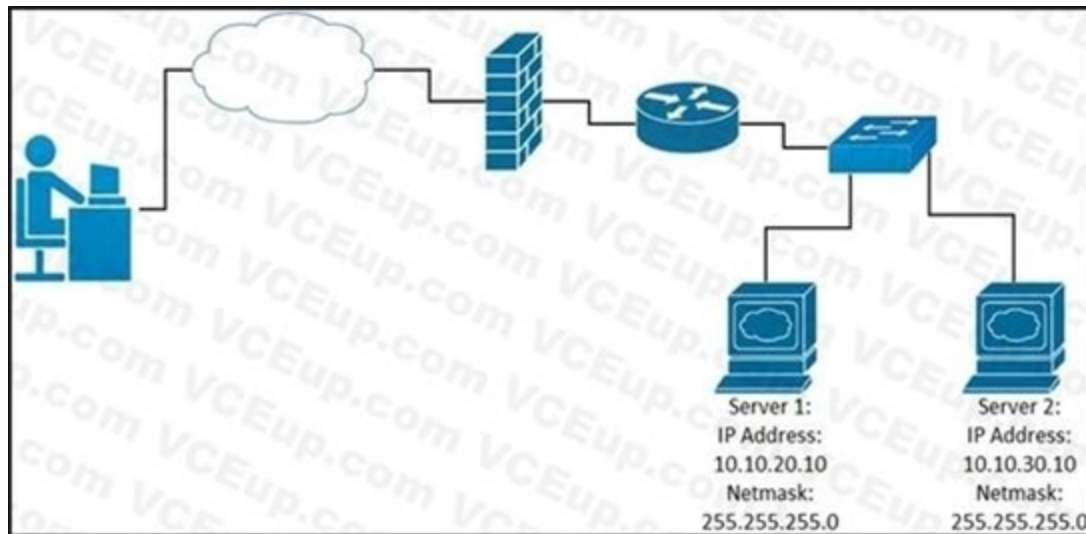
Correct Answer: A, D

Section:

Explanation:

QUESTION 151

Refer to the exhibit.



Vdumps

While developing a Cisco Webex bot, an application reaches the public IP address of the firewall, but traffic is forwarded to the IP address of server 1 instead of the IP address of server 2. What causes this issue?

- A. The proxy server that rewrites traffic is misconfigured.
- B. The router is sending the traffic to server 1 instead of server 2.
- C. The switch is forwarding IP traffic to the wrong VLAN.
- D. NAT is misconfigured on the firewall.

Correct Answer: D

Section:

Explanation:

QUESTION 152

Developer is working on a new feature and made changes on a branch named 'branch-413667549anew'.

When merging the branch to production, conflicts occurred. Which Git command must the developer use to recreate the pre-merge state?

- A. git merge -no-edit
- B. git merge -commit
- C. git merge -revert
- D. git merge -abort

Correct Answer: D

Section:

Explanation:

<https://www.git-tower.com/learn/git/ebook/en/command-line/advanced-topics/merge-conflicts>

QUESTION 153

A company wants to automate the orders processed on its website using API. The network device that supports the solution must: support XML encoding support distributed transactions support YANG data models be support software

redundancy Which requirement prevents the use of RESTCONF for the solution?

- A. software redundancy
- B. YANG data models
- C. distributed transactions
- D. XML encoding

Correct Answer: C

Section:

Explanation:

**QUESTION 154**

Which technology is responsible for resolving a host name to an IP address?

- A. DNS
- B. SNMP
- C. DHCP
- D. NTP

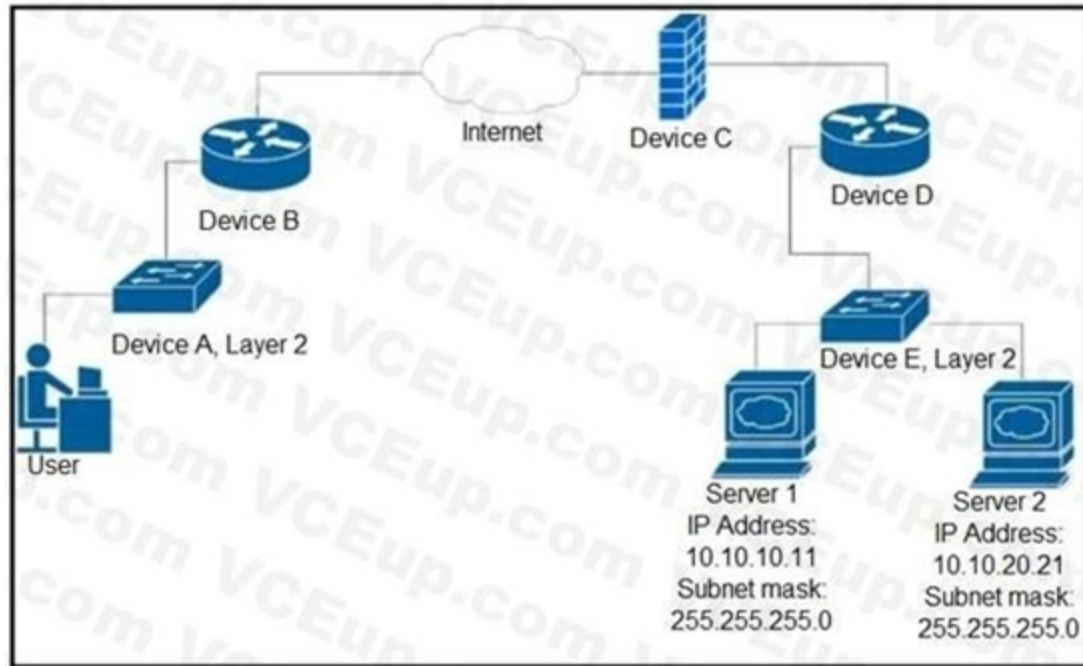
Correct Answer: A

Section:

Explanation:

QUESTION 155

Refer to the exhibit.



Up to which device does the communication server 1 and server 2 go?

- A. device B
- B. device C
- C. device D
- D. device E

Correct Answer: C

Section:

Explanation:



QUESTION 156

Refer to the exhibit.

```
url = 'https://api.amp.cisco.com/v1/computers'
response = session.get (url)
response_json = response.json ()

for item in response_json ['data'] :
    print (item['connector_guid'], item['hostname'])

while 'next' in response_json['metadata'] ['links']:
    

    response = session.get (next_url)
    response_json = response.json()
    for item in response_json['data']:
        print(item['connector_guid'], item['hostname'])
```

An engineer sends the request to collect data over Cisco AMP for Endpoints API. The Engineer must list guide and hostname data for all computers, but the first request returns only 500 items out of 2,000. Then, the engineer adds the loop to collect all the dat a. What must be added to the script where the code is missing to complete the requests?

- A. `next_url = response_json ['metadata'] ['links'] ['next']`
- B. `next_url = response_json ['metadata'] ['next']`
- C. `next_url = response_json ['next']`
- D. `next_url = response_json ['metadata'] ['links']`

- A. Option A
- B. Option B
- C. Option C
- D. Option D

Correct Answer: A

Section:

Explanation:

https://github.com/CiscoSecurity/amp-03-pagination/blob/master/01_paginate.py while 'next' in response_json['metadata']['links']:
`next_url = response_json['metadata']['links']['next'] response = session.get(next_url) response_json = response.json() for computer in response_json['data']:
print(computer['connector_guid'], computer['hostname'])`

QUESTION 157

Which protocol is used for clock synchronization between network devices?

- A. FTP
- B. NNTP
- C. BGP
- D. NTP

Correct Answer: D

Section:

Explanation:

Network Time Protocol (NTP) is an internet protocol used to synchronize with computer clock time sources in a network. It belongs to and is one of the oldest parts of the TCP/IP suite. The term NTP applies to both the protocol and the client- server programs that run on computers.

QUESTION 158

What is the meaning of the HTTP status code 204?

- A. request completed; new resource created
- B. server successfully processed request; no content returned
- C. standard response for successful requests
- D. invalid query parameters

Correct Answer: B

Section:

Explanation:



QUESTION 159

A developer writes an application that refines data in temporary secure file storage hosted on the public cloud. Data will be deleted after processing and does not contain any private information. What is the advantage that a public cloud deployment provides to the developer?

- A. high security with encryption
- B. ease in infrastructure management
- C. flexible development
- D. bespoke services

Correct Answer: B

Section:

Explanation:

QUESTION 160

Refer to the exhibit.

```
workstation:Network admin$ ls
PROD TEST
workstation:Network admin$ ls ./TEST
config.txt
workstation:Network admin$
```

Refer to the exhibit. A network engineer must copy the "config.txt" file from directory TEST to directory PROD. The copied file must also be renamed into "current.txt". Which command must be used to accomplish these tasks?

- A. cp ./PROD/current.txt ./TEST/config.txt
- B. cp ./TEST/current.txt ./PROD/config.txt
- C. cp ./PROD/config.txt ./TEST/current.txt
- D. cp ./TEST/config.txt ./PROD/current.txt

Correct Answer: D

Section:

Explanation:

QUESTION 161

What is a benefit of using model-driven programmability for infrastructure automation?

- A. connected user tracking
- B. infrastructure resource optimization
- C. multiple device control protocols
- D. device performance monitoring

Correct Answer: B

Section:

Explanation:

Model-driven programmability refers to using data models to define the desired state of network infrastructure and automate its configuration and management. This approach offers several benefits: Infrastructure Resource Optimization: Model-driven programmability allows for more efficient use of network resources by ensuring consistent and optimal configurations. Automation driven by data models helps in reducing human errors and improving the overall performance and utilization of the infrastructure. Consistency: Automated, model-driven configurations ensure that network devices are consistently configured, reducing variability and the risk of

misconfigurations. Scalability: It enables scalable automation solutions that can easily adapt to changing network requirements and topologies.

QUESTION 162

What is the function of an Ethernet switch in a networking environment?

- A. to switch a frame from one port to another port based on IP address
- B. to switch a frame from one port to another port based on MAC address
- C. to provide IP addressing to connected hosts
- D. to block unwanted traffic

Correct Answer: B

Section:

Explanation:

QUESTION 163

Which command reverses the last commit without changing the index file or the working tree position?

- A. git revert HEAD
- B. git reset --hard HEAD~3
- C. git reset --soft HEAD^
- D. git revert

Correct Answer: C

Section:

Explanation:



QUESTION 164

Refer to the exhibit.

```
1 - hosts: nxos_rtr
2   gather_facts: false
3   tasks:
4     - nxos_hsrp:
5       group: "{{ item.group }}"
6       vip: "{{ item.vip }}"
7       priority: 115
8       interface: "{{ item.interface }}"
9       preempt: enabled
10      auth_type: md5
11      auth_string: "s3cuR3"
12      version: 2
13      host: "{{ hostvars['rtr-1a']['ansible_ssh_host'] }}"
14      with_items:
15        - "{{ hsrp_groups }}"
16      delegate_to: "{{ hostvars['srv-1a']['ansible_ssh_host'] }}"
```

Refer to the exhibit. An engineer runs a network that consists of Cisco Nexus devices. The network is distributed between data centers in different locations. The switches are configured using standalone connections and a single point of failure. Which process is being automated by the Ansible playbook?

- A. enabling HSRP on the nxos_rtr inventory host
- B. enabling HSRP on the rtr-1a inventory host
- C. executing HSRP configuration from the Ansible controller node
- D. executing HSRP configuration from the srv-1a inventory host

Correct Answer: A

Section:

Explanation:

The Ansible playbook in the exhibit is designed to automate the configuration of HSRP (HotStandby Router Protocol) on a Cisco Nexus switch listed in the nxos_rtr inventory group. Here's what the playbook does:
Hosts: The playbook is targeting nxos_rtr hosts.
Task: The task uses the nxos_hsrp module to configure HSRP.
Parameters: Various parameters such as group, VIP, priority, interface, authentication, and version are set for HSRP configuration.
Delegation: The configuration is delegated to the srv-1a inventory host, but it is still targeting the nxos_rtr for the actual HSRP configuration. Therefore, the playbook is enabling HSRP on the nxos_rtr inventory host

QUESTION 165

Refer to the exhibit.

```
import requests
from requests.auth import HTTPBasicAuth

user= "user"
password= "PASSWORD"

token=requests.post('https://<DNAC ADDRESS>/dna/system/api/v1/auth/token',
```

Refer to the exhibit. A developer must use a token to collect data from Cisco DNA Center API and prepares a Python script to send requests. Which line of code needs to be placed on the snippet where the code is missing to obtain a token from the Cisco DNA Center API?

- A. token=BasicAuth('user','password')
- B. auth=BasicAuth('user','password')
- C. auth=HTTPBasicAuth(user,password)
- D. token=HTTPBasicAuth(user,password)

Correct Answer: C

Section:

Explanation:

QUESTION 166

To which stage of development do Infrastructure as Code principles relate?

- A. manual configuration
- B. service provisioning
- C. physical deployment
- D. requirement collection

Correct Answer: B

Section:

Explanation:

QUESTION 167

Refer to the exhibit.

```
import os
import requests

# username and password

API_USER_NAME = "devnetuser"
API_PASSWORD = os.environ['API_PASSWORD']

requests.get('https://api.cisco.com/end-service', auth=(API_USER_NAME, API_PASSWORD))
```

Refer to the exhibit. An engineer must authorize a REST API call. The API password is "Cisco123!".

Which Bash command must be placed in the code to authorize the call?

- A. mkdir API_PASSWORD=Cisco123!
- B. set API_PASSWORD=Cisco123!
- C. cp API_PASSWORD=Cisco123!
- D. export API_PASSWORD=Cisco123!

Correct Answer: D

Section:

Explanation:



QUESTION 168

Which function does a router provide to a network?

- A. broadcast domain segmentation
- B. unique host on a Layer 3 network
- C. unique hardware address for every node on a LAN
- D. broadcast domain extension

Correct Answer: A

Section:

Explanation:

Routers play a crucial role in networking by providing several key functions, including:

- Broadcast Domain Segmentation:** Routers separate broadcast domains, preventing broadcast traffic from one network segment from spreading to another. This improves network efficiency and reduces unnecessary traffic.
- Routing:** Routers forward packets between different networks based on IP addresses, enabling communication between devices on different subnets or networks.

Network Address Translation (NAT): Routers can perform NAT, which allows multiple devices on a local network to share a single public IP address.

QUESTION 169

Which IP service is used to monitor the performance of network devices?

- A. SNMP
- B. DHCP
- C. DNS
- D. NTP

Correct Answer: A

Section:

Explanation:

QUESTION 170

Which IP service synchronizes the time across devices?

- A. DNS
- B. NTP
- C. SNMP
- D. NAT

Correct Answer: B

Section:

Explanation:

QUESTION 171

How does edge computing analyze sensitive data in the context of privacy control?

- A. locally instead of sending the data to the cloud for analysis
- B. locally or on the cloud depending on the configuration
- C. all at once by sending the data to the cloud
- D. locally on each node, and then sends the data to the cloud

Correct Answer: A

Section:

Explanation:

QUESTION 172

Which Python function is used to parse a string that contains JSON data into a Python dictionary?

- A. json.dumps()
- B. json.to_json()
- C. json.parse()
- D. json.loads()

Correct Answer: D

Section:

Explanation:



loads() function is present in python built-in 'json' module. This function is used to parse the JSON string.

QUESTION 173

Which tool simulates a network that runs Cisco equipment?

- A. Cisco Prime Infrastructure
- B. VMware
- C. Docker
- D. CML

Correct Answer: D

Section:

Explanation:

Cisco Modeling Labs (CML) is a network simulation tool that allows users to create, configure, and simulate networks with Cisco devices and topologies.

Cisco Modeling Labs (CML): CML provides a virtual environment where users can simulate network topologies and devices, including routers, switches, and other network components.

Simulation and Testing: CML allows users to test configurations, troubleshoot network issues, and study network behavior in a controlled environment.

Cisco Modeling Labs: Cisco Modeling Labs

QUESTION 174

A development team needs to containerize an application named 'cust475605674'. A Dockerfile has been created and now the docker build command needs to be run using the current folder to find the Dockerfile. build the image and create a local repository named 'cust321453857-rep' that points to that image. Which command must be used?

- A. docker build -t cust321453857-rep -f Dockerfile
- B. docker build cust321453857-rep -f Dockerfile.txt
- C. docker build cust321453857-rep Dockerfile
- D. docker build -t cust321453857-rep Dockerfile.txt



Correct Answer: A

Section:

Explanation:

To build a Docker image using the current folder and a specified Dockerfile, and then tag the image with a specific name for the local repository, the following command is used:

docker build: This command builds a Docker image from a Dockerfile.

-t cust321453857-rep: The -t option tags the resulting image with the specified name (cust321453857-rep).

-f Dockerfile: The -f option specifies the Dockerfile to use for building the image.

Command:

```
docker build -t cust321453857-rep -f Dockerfile .
```

Docker Build Command: Docker Build

QUESTION 175

Which IP service is responsible for automatically assigning an IP address to a device?

- A. DNS
- B. DHCP
- C. SNMP
- D. NAT

Correct Answer: B

Section:

Explanation:

The Dynamic Host Configuration Protocol (DHCP) is responsible for automatically assigning IP addresses to devices on a network. When a device connects to the network, it sends a broadcast request for an IP address, and a DHCP server responds with an IP address, subnet mask, default gateway, and DNS server information. This process simplifies network administration by automating IP address assignment and ensuring that devices have unique IP addresses without manual configuration.

Cisco DHCP Overview

RFC 2131: DHCP

QUESTION 176

Refer to the exhibit.

```
git clone [--template=<template directory>]
  [-l] [-s] [--no-hardlinks] [-q] [-n] [--bare] [--mirror]
  [-o <name>] [-b <name>] [-u <upload-pack>] [--reference <repository>]
  [--dissociate] [--separate-git-dir <git dir>]
  [--depth <depth>] [--[no-]single-branch] [--no-tags]
  [--recurse-submodules[=<pathspec>]] [--[no-]shallow-submodules]
  [--[no-]remote-submodules] [--jobs <n>] [--sparse]
  [--filter=<filter>] [--] <repository>
  [<directory>]
```

A network engineer must improve the fabric discovery process in a data center. The engineer wants to check current ACI scripts in the myproject repository and clone them to a folder named aci. The engineer will optimize the scripts from the new folder. Which command performs this task on the Git repository?

A)

```
git clone git@github.com:myproject -f aci
```

B)

```
git clone git@github.com:myproject:aci
```

C)

```
git clone git@github.com:myproject -dr aci
```

D)

```
git clone git@github.com:myproject aci
```

A. Option A

B. Option B

C. Option C

D. Option D

Correct Answer: D

Section:

Explanation:

To clone the 'myproject' repository from GitHub into a new folder named 'aci' for optimization, the correct command is:

```
git clone git@github.com:myproject aci
```

This command specifies the SSH URL of the repository (git@github.com

) and sets the target directory to 'aci.' The git clone command copies the repository to the local machine, creating a new directory named 'aci' where the repository's contents will be placed.

Git Clone Documentation



QUESTION 177

DRAG DROP

Refer to the exhibit.

The screenshot shows a REST client interface with the following components:

- Params:** Authorization, Headers (9), Body, Pre-request Script, Tests, Settings, Cookies, Code.
- Query Params:** A table with columns KEY, VALUE, and DESCRIPTION. The first row contains 'Key', 'Value', and 'Description'.
- Body:** Status: 200 OK, Time: 93ms, Size: 3.5 KB, Save Response.
- Response Format:** Pretty, Raw, Preview, Visualize, JSON.
- JSON Response:**

```
1 {
2   "Cisco-IOS-XE-device-hardware-oper:device-hardware-data": {
3     "entity-information": [
4       {
5         "fru": "device-hardware-fru-rp",
6         "slotnum": 0,
7         "baynum": 0,
8         "chassisnum": -1,
9         "physical-index": 10,
10        "status": "module-status-online",
11        "description": "Cisco CSR1000V Route Processor",
12        "status-last-change": "2020-03-23T21:40:30+00:00",
13        "high-availability-state": "ha-role-active",
14        "chassis-state": "ha-role-active"
15      },
16      {
17        "fru": "device-hardware-fru-esp",
18        "slotnum": 0,
19        "baynum": 0,
20        "chassisnum": -1,
21        "physical-index": 30,
22        "status": "module-status-online",
23        "description": "Cisco CSR1000V Embedded Services Processor",
24        "status-last-change": "2020-03-23T21:40:28+00:00",
25        "high-availability-state": "ha-role-active",
26        "chassis-state": "ha-role-active"
27      }
28    ]
29  }
30 }
```

Drag and drop the code from the bottom onto the box where the code is missing to construct a Python script that allows an engineer to retrieve interface data. t all options are used.

Select and Place:

```

01 import requests, json
02
03 device = {
04     "ip": "ios-xe-mgmt-latest.cisco.com",
05     "username": "+++@", "password": "+++@",
06     "port": "9443",
07 }
08
09 headers = {
10     " " : "application/yang-data+json",
11     "Content-Type" : "application/yang-data+json",
12 }
13
14 module = "ietf-interfaces:interfaces"
15 url = f"https://{ }:{device['port']}/restconf/data/{module}"
16
17 requests.packages.urllib3.disable_warnings()
18 response = requests.get(url, headers=headers, auth=(device['username'],
19                                                     device['password']),
20                         verify=False).json()
21
22 interfaces = response['ietf-interfaces:interfaces'][' ' ]
23
24 for interface in :
25     if bool(interface['ietf-ip:ipv4']):
26         print(f"{interface['name']} -- {interface['description']} -- "
27               f"{interface['ietf-ip:ipv4']['address'][0]['ip']}")

```




Correct Answer:

```

01 import requests, json
02
03 device = {
04     "ip": "ios-xe-mgmt-latest.cisco.com",
05     "username": "+++*", "password": "+++*",
06     "port": "9443",
07 }
08
09 headers = {
10     "Accept": "application/yang-data+json",
11     "Content-Type": "application/yang-data+json",
12 }
13
14 module = "ietf-interfaces:interfaces"
15 url = f"https://{device['ip']}:{device['port']}/restconf/data/{module}"
16
17 requests.packages.urllib3.disable_warnings()
18 response = requests.get(url, headers=headers, auth=(device['username'],
19                                                     device['password']),
20                         verify=False).json()
21
22 interfaces = response['ietf-interfaces:interfaces']['interfaces']
23
24 for interface in interfaces:
25     if bool(interface['ietf-ip:ipv4']):
26         print(f"{interface['name']} -- {interface['description']} -- "
27               f"{interface['ietf-ip:ipv4']['address'][0]['ip']}")

```



Section:

Explanation:

Cisco DevNet Associate Certification Guide

Cisco RESTCONF API Documentation

Python requests Library Documentation

:

QUESTION 178

DRAG DROP

Get Device List

GET /dna/intent/api/v1/network-device

Operation Id: getDeviceList

Description: Returns list of network devices based on filter criteria such as management IP address, mac address, hostname, etc

You can use the .* in any value to conduct a wildcard search. For example, to find all hostnames beginning with myhost in the IP address range 192.25.18.n, issue the following request: GET /dna/intent/api/v1/network-device?

hostname=myhost.*&managementIpAddress=192.25.18.* If id parameter is provided with comma separated ids, it will return the list of network-devices for the given ids and ignores the other request parameters.

Request Parameters

Query

hostname | Array

hostname

serialNumber | Array

serialNumber

macAddress | Array

macAddress

managementIpAddress | Array

managementIpAddress

location | Array

location

family | Array

family

Authentication API

POST /dna/system/api/v1/auth/token

Operation Id: authenticationAPI

Description: API to obtain an access token. The token obtained using this API is required to be set as value to the X-Auth-Token HTTP Header for all API calls to Cisco DNA Center.

Request Parameters

Header

Content-Type * | String

Default = application/json

Request body content type

Refer to the exhibit. Drag and drop the code snippets from the bottom onto the blanks in the Python script to retrieve a list of hosts using the Cisco DNA Center API. Not all options ...used.

Select and Place:

```

import json, requests, urllib3
from requests.auth import HTTPBasicAuth
from config import host, username, password

headers = { 'content-type': " [ ] ", 'x-auth-token': "csd0934rjxx" }

def dna_api_auth(host, username, password):!
    url = "https:///{}/dna/intent/api/v1/network-device/auth/token".format(host)
    response = requests.post(url, auth=HTTPBasicAuth(username, password),
                             headers=headers, verify=False)
    return response. [ ] ["Token"]

def list_dna_devices(token):
    url = "https:// {} /api/v1/network-device".format(host)
    headers["x-auth-token"] = token
    response = requests.get(url, headers=headers, verify=False)
    data = response.json()
    for item in [ ] :
        print(item["hostname"])

token = dna api auth(host, username, password)
list_dna_devices( [ ] )

```

application/json	data['response']:	"Token"
json()	token	[0]

Correct Answer:

```

import json, requests, urllib3
from requests.auth import HTTPBasicAuth
from config import host, username, password

headers = { 'content-type': " application/json ", 'x-auth-token': "csd0934rjxx" }

def dna_api_auth(host, username, password):!
    url = "https:///{}/dna/intent/api/v1/network-device/auth/token".format(host)
    response = requests.post(url, auth=HTTPBasicAuth(username, password),
                             headers=headers, verify=False)
    return response. [ json() ] ["Token"]

def list_dna_devices(token):
    url = "https:// {} /api/v1/network-device".format(host)
    headers["x-auth-token"] = token
    response = requests.get(url, headers=headers, verify=False)
    data = response.json()
    for item in [ data['response']: ] :
        print(item["hostname"])

token = dna api auth(host, username, password)
list_dna_devices( [ token ] )

```

		"Token"
		[0]

Section:

Explanation:

Cisco DNA Center Platform: Cisco DNA Center Platform



QUESTION 179

What is a capability of the AXL API?

- A. It adds a user to a collaboration space to share information and files.
- B. It executes SQL commands in Cisco Unified Communications Manager.
- C. It allows a meeting to be created with users that do not belong to same organization.
- D. It collects information about system, cluster, and database settings.

Correct Answer: B

Section:

Explanation:

The AXL (Administrative XML) API is a SOAP-based API used by Cisco Unified Communications Manager (CUCM) to allow third-party applications to perform administrative tasks. One of the key capabilities of the AXL API is that it allows users to execute SQL commands within CUCM. This capability can be used to query and modify the CUCM database, enabling tasks such as retrieving information about users, devices, and configurations, or making updates to the CUCM system.

Cisco DevNet Associate Certification Guide

Cisco Unified Communications Manager AXL Developer Guide

QUESTION 180

DRAG DROP

Drag and drop the code from the bottom onto the box where the code is missing to present GigabitEthernet2 details in the XML format. Not all options are used.

Select and Place:

```

import lxml.etree as ET
from ncclient import manager
from ncclient.operations import RPCError

if __name__ == '__main__':

    with manager.connect(host="sandbox-iosxe-latest-1.cisco.com",
                        port="830",
                        username="developer",
                        password="Cisc012345",
                        timeout=90,
                        hostkey_verify=False,
                        device_params={'name': 'csr'}) as m:

        try:
            response = m. [ ] (' [ ] ',
                               ('xpath', '/native/interface/GigabitEthernet[ [ ] ]')).xml
            data = ET.fromstring(response.encode('utf-8'))
            RPCError as e:
            data = e._raw

            print(ET.tostring(data, pretty print=True).decode('utf-8'))

```

running current name="2" 2

put_config commit

Correct Answer:

```

import lxml.etree as ET
from ncclient import manager
from ncclient.operations import RPCError

if __name__ == '__main__':

    with manager.connect(host="sandbox-iosxe-latest-1.cisco.com",
                        port="830",
                        username="developer",
                        password="Cisc012345",
                        timeout=90,
                        hostkey_verify=False,
                        device_params={'name': 'csr'}) as m:

        try:
            response = m.commit({'running': True},
                               ('xpath', '/native:iosxe:GigabitEthernet[2]')).xml
            data = ET.fromstring(response.encode('utf-8'))
            RPCError as e:
            data = e._raw

        print(ET.tostring(data, pretty print=True).decode('utf-8'))

```

current

name="2"

put_config

Section:

Explanation:

QUESTION 181

An engineer is creating an API to automatically obtain specific zones from Cisco Meraki MV cameras. The data that is provided when the API runs must represent the current analytic zones that are configured on the cameras. The API must start automatically at 6 p.m. every day and save the data on a server for further processing. Which part of the HTTP request must be configured to meet these requirements?

- A. request body with Status Code set to '302'
- B. request header with Content-Type set to 'application/json'
- C. request header with Content-Encoding set to 'application/xml'
- D. request body with Content-Type set to 'application/xml'

Correct Answer: B

Section:

Explanation:

When creating an API to interact with Cisco Meraki MV cameras, the request header must specify the correct content type to ensure the server understands the format of the request data. Setting the Content-Type header to 'application/json' indicates that the request body is formatted as JSON. This is essential for APIs that expect JSON data for requests and responses.

Additionally, the API must be scheduled to run automatically at 6 p.m. every day. This can be achieved using a cron job or a scheduling tool like cron in Unix-based systems or Task Scheduler in Windows.

Cisco DevNet Associate Certification Guide

Cisco Meraki API Documentation

QUESTION 182

Refer to the exhibit.

```

1 import requests
2 from requests.auth import HTTPBasicAuth
3 BASE_URL = 'https://<IP ADDRESS or FQDN>'
4 AUTH_URL = '/dna/system/api/v1/auth/token'
5 TOKEN = '<TOKEN>'
6
7 headers = {'X-Auth-Token': TOKEN, 'Content-Type': 'application/json'}
8
9 DEVICES_COUNT_URL = '/dna/intent/api/v1/network-device/count'
10 DEVICES_URL = '/dna/intent/api/v1/network-device'
11 DEVICES_BY_ID_URL = '/dna/intent/api/v1/network-device/'
12
13 def devices_func(headers):
14     response = requests.get(BASE_URL + DEVICES_COUNT_URL,
15                             headers = headers, verify=False)
16     return response.json()['response']
17
18 def devices_test(headers, query_string_params):
19     response = requests.get(BASE_URL + DEVICES_URL, headers = headers,
20                             params = query_string_params, verify=False)
21     return response.json()['response']
22
23 def devices_info(headers, device_id):
24     response = requests.get(BASE_URL + DEVICES_BY_ID_URL + device_id,
25                             headers = headers, verify=False)
26     return response.json()['response']
27
28 print(devices_func(headers))
29 print(devices_test(headers, {}))
30 print(devices_test(headers, {'hostname': 'CSR1Kv-01.devnet.local'}))
31 response = devices_test(headers, {'platformId': 'C9500-40X'})
32 print(devices_info(headers, response[0]['id']))

```

Refer to the exhibit. An engineer prepares a script to automate workflow by using Cisco DNA Center APIs to display: total count of devices list of the network devices information of one device with a hostname filter What is displayed in the final step after the Python script is executed?

- A. information about a device of type C9500-40x.
- B. filtered results by the hostname and the platformId C9500-40X
- C. information about the test devices
- D. list of devices with platformId C9500-40x

Correct Answer: B

Section:

Explanation:

QUESTION 183

A team of developers is responsible for a network orchestration application in the company. The responsibilities also include: developing and improving the application in a continuous manner deployment of the application and management of CI/CD frameworks monitoring the usage and problems and managing the performance improvements Which principle best describes this DevOps practice?

- A. responsible for IT operations
- B. automation of processes
- C. end-to-end responsibility
- D. quality assurance checks

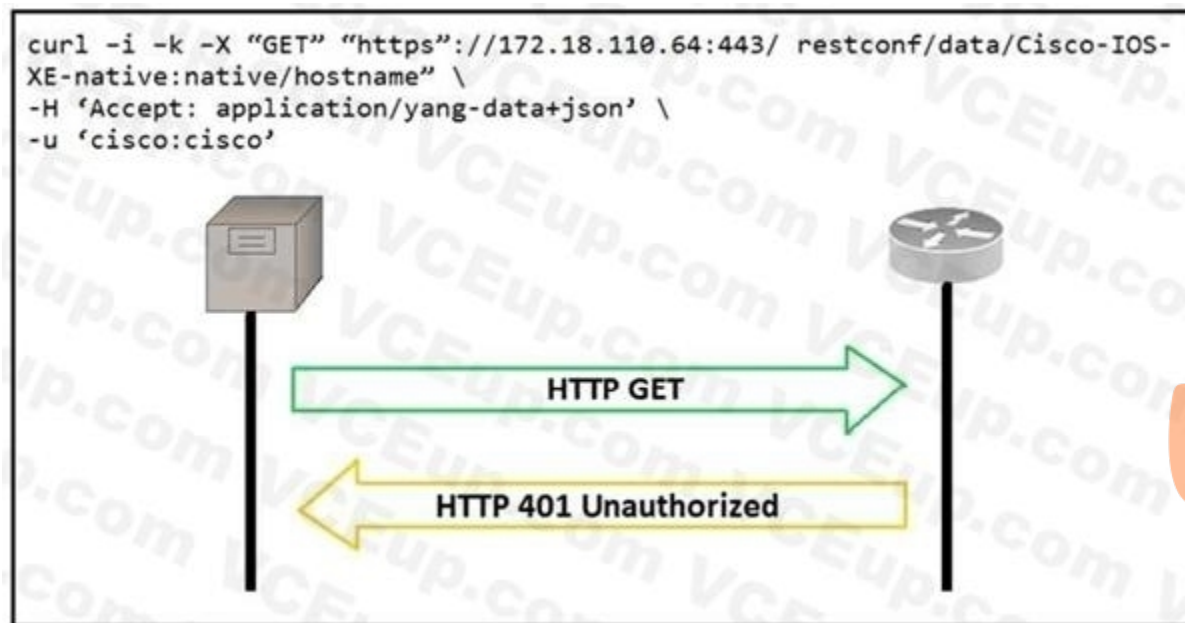
Correct Answer: C

Section:

Explanation:

QUESTION 184

Refer to the exhibit.



An administrator attempts to perform a GET operation by using the Cisco IOS XE RESTCONF API to return the hostname of a device. The sequence diagram in the exhibit illustrates the HTTP messages observed. Which change to the API request resolves the issue?

- A. Remove the -H 'Accept: application/yang-data+json' header.
- B. Replace -u cisco:cisco parameter with -u 'cisco:cisco'.
- C. Change the request method from -X 'GET' to -X 'POST'.
- D. Add the -H 'Content-Type: application/yang-data+json' header.

Correct Answer: D

Section:

Explanation:

The HTTP 401 Unauthorized error indicates that the request lacks proper authentication credentials. However, in this case, the credentials are provided, so the issue likely stems from a missing or incorrect header. The Content-Type header is necessary for many REST APIs to specify the format of the request body. Adding the Content-Type: application/yang-data+json header ensures that the server correctly interprets the request as JSON formatted data according to the YANG data model.

QUESTION 185

DRAG DROP

Refer to the exhibit.

CISCO INTERSIGHT

Introduction

- Create Server Profile and Resources
- Create Server VMedia Policy
- Retrieve Server VMedia Policy
- Create Server Boot Policy
- Retrieve Server Boot Policy by Moid
- Create Server NTP Policy
- Retrieve NTP Policy by Moid
- Create 'server-01' Server Profile
- Retrieve 'server-01' Server Profile
- Create 'server-02' Server Profile
- Retrieve 'server-02' Server Profile
- Update vmedia/Profiles Profile
- Update Boot/Precision Policies Profile
- Update NTP/Policies Profiles
- Retrieve Server RackUnit Resources

Create Server Profile and Resources

POST Create Server VMedia Policy

https://www.intersight.com/api/v1/vmedia/Policies

HEADERS

Accept	application/json
Authorization	Signature ((httpsig))
Digest	((compused-digest))
Date	((current-date))
Content-Type	application/json

Refer to the exhibit. Drag and drop the code from the bottom onto the box where the code is missing to construct a Python script by using the Cisco SDK. Not all options are used.

Select and Place:

```
import sys, json, argparse
from intersight.intersight_api_client import IntersightApiClient
from intersight.apis import asset_device_registration_api, asset_device_claim_api

result = dict(changed=False)

parser = argparse.ArgumentParser()
parser.add_argument('-a', '--api_params', default='intersight_api_params.json')
parser.add_argument('-t', '--target_host', dest='hostname', required=True)
args = parser.parse_args()
with open(args.api_params, 'r') as api_file:
    intersight_api_params = json.load( )
api_instance = IntersightApiClient(
    host=intersight_api_params[''],
    private_key=intersight_api_params['api_private_key_file'],
    api_key_id=intersight_api_params['api_key_id'],
)
api_handle = asset_device_registration_api.AssetDeviceRegistrationApi(api_instance)

kwargs = dict(filter="ConnectionStatus eq 'Connected'")
= api_handle.asset_device_registrations_get(** )

for device in api_result.results:
    if device.device_ip_address[0] == args.hostname:
        api_handle = asset_device_claim_api.AssetDeviceClaimApi(api_instance)
        api_handle.asset_device_claims_moid_delete(moid=device.device_claim.moid)
        result['changed'] = True
        break
```



- kwargs
- args
- api_file
- api_key
- api_base_uri
- result
- api_result

Correct Answer:

```

import sys, json, argparse
from intersight.intersight_api_client import IntersightApiClient
from intersight.apis import asset_device_registration_api, asset_device_claim_api

result = dict(changed=False)

parser = argparse.ArgumentParser()
parser.add_argument('-a', '--api_params', default='intersight_api_params.json')
parser.add_argument('-t', '--target_host', dest='hostname', required=True)
args = parser.parse_args()
with open(args.api_params, 'r') as api_file:
    intersight_api_params = json.load( api_file )
api_instance = IntersightApiClient(
    host=intersight_api_params[' api_base_uri '],
    private_key=intersight_api_params['api_private_key_file'],
    api_key_id=intersight_api_params['api_key_id'],
)
api_handle = asset_device_registration_api.AssetDeviceRegistrationApi(api_instance)

kwargs = dict(filter="ConnectionStatus eq 'Connected'")
result = api_handle.asset_device_registrations_get(** kwargs )

for device in api_result.results:
    if device.device_ip_address[0] == args.hostname:
        api_handle = asset_device_claim_api.AssetDeviceClaimApi(api_instance)
        api_handle.asset_device_claims_moid_delete(moid=device.device_claim.moid)
        result['changed'] = True
        break

```

args api_key api_result



Section:

Explanation:

QUESTION 186

DRAG DROP

Drag and drop the functions from the left onto the networking devices on the right.

Select and Place:

forwards by default	load balancer
distributes unicast traffic over devices	switch
uses traffic inspection to make forwarding decisions	firewall
distributes multicast traffic over devices	router

Correct Answer:

	forwards by default
	distributes unicast traffic over devices
	uses traffic inspection to make forwarding decisions
	distributes multicast traffic over devices

Section:

Explanation:

QUESTION 187

DRAG DROP

Refer to the exhibit.

```

SDK Documentation:

OrganizationController:
  get_organizations()
  get_network_device(dict)
DevicesController:
  get_network_devices(id)
NetworksController:
  get_organization_networks(dict)

```

Refer to the exhibit. A script must output details of all the Cisco Meraki MS220-BP switches across all organizations and networks. Drag and drop the code snippets from the bottom onto the boxes in the code to complete the script. Not all options are used.

Select and Place:



```
from meraki_sdk.meraki_sdk_client import MerakiSdkClient
from meraki_sdk.exceptions.api_exception import APIException

api_key = "API_KEY"
client = MerakiSdkClient(api_key)

for org in [redacted]:
    try:
        options = {"organization id": org["id"]}
        networks = [redacted]
        for network in networks:
            devices = [redacted]
            for device in devices:
                if device["model"] == "MS220-8P":
                    options = {"network id": network["id"], "serial": device["serial"]}
                    output = [redacted]
                    print(output)
            except APIException as e:
                pass
```

- client.organizations.get_organizations():
- client.networks.get_organization_networks(api_key)
- client.networks.get_organization_networks(options)
- client.devices.get_network_devices(network ["id"])
- client.devices.get_network_device(options=options)
- client_devices.get_network_device(device ["model"])



Correct Answer:


```
from meraki_sdk.meraki_sdk_client import MerakiSdkClient
from meraki_sdk.exceptions.api_exception import APIException

api_key = "API_KEY"
client = MerakiSdkClient(api_key)

for org in [ ]:
    try:
        options = {"organization id": org["id"]}
        networks = [ ]
        for network in networks:
            devices = [ ]
            for device in devices:
                if device["model"] == "MS220-8P":
                    options = {"network id": network["id"], "serial": device["serial"]}
                    output = [ ]
                    print(output)
            except APIException as e:
                pass
```

[]
client.networks.get_organization_networks(api_key)

[]
client_devices.get_network_device(device ["model"])



Section:

Explanation:

QUESTION 188

DRAG DROP

Drag and drop the code snippets from the bottom onto the blanks in the code to complete the happy path scenario. Not all options are used.

Select and Place:

```
import member as m
import pytest
class Team:
    def __init__(self, name):
        self.name = name
        self.members = []
    def add_member(self, member):
        if member:
            if member not in self.members:
                [ ]
            return True
        else:
            [ ]
        else:
            [ ]
@pytest.fixture
def team():
    team = Team('Reds')
    yield team
    del team
@pytest.fixture
def member():
    member = m.Member('Chris George')
    yield member
    del member
@pytest.mark.usefixtures('team', 'member')
class TestHappyPathAddMemberToTeam:
    def test_add_member_to_team(self, team, member):
        assert [ ] is True
```

- return True
- team.add_member(member)
- self.members.append(member)
- yield member
- return False
- member.add_member()

Correct Answer:



```
import member as m
import pytest
class Team:
    def __init__(self, name):
        self.name = name
        self.members = []
    def add_member(self, member):
        if member:
            if member not in self.members:
                member.add_member()
            return True
        else:
            return False
    else:
        team.add_member(member)
@pytest.fixture
def team():
    team = Team('Reds')
    yield team
    del team
@pytest.fixture
def member():
    member = m.Member('Chris George')
    yield member
    del member
@pytest.mark.usefixtures('team', 'member')
class TestHappyPathAddMemberToTeam:
    def test_add_member_to_team(self, team, member):
        assert [yield member] is True
```

return True

self.members.append(member)



Section:
Explanation:

QUESTION 189
DRAG DROP

Refer to the exhibit. Drag and drop the code snippets from the bottom onto the blanks in the Python script to retrieve a list of network devices from Cisco DNA Center. Not all options are used.

Select and Place:

```

import requests
import json
from urllib3.exceptions import InsecureRequestWarning

requests.packages.urllib3.disable_warnings()

dna_center_url = "My_DNA_Center_URL"
authentication = ("dnacenteruser", "dnacenter_password")

def get_token ():
    url = "https:// " + dna_center_url + "/dna/system/api/v1/auth/token"
    response = requests.post(url, auth=authentication, verify=False)
    token = response.json()['Token']
    return token

def get_device_list():
    token = 
    url = "https:// " + dna_center_url + "dna/intent/api/v1/" + 
    header = {  : token, 'content-type' : 'application/json'}
    response = requests.get(url, headers=header)
    device_list = 
    print(json.dumps (device_list, indent=4))

if __name__ == "__main__":
    get_device_list()

```


Correct Answer:



```

import requests
import json
from urllib3.exceptions import InsecureRequestWarning

requests.packages.urllib3.disable_warnings()

dna_center_url = "My_DNA_Center_URL"
authentication = ("dnacenteruser", "dnacenter_password")

def get_token ():
    url = "https:// " + dna_center_url + "/dna/system/api/v1/auth/token"
    response = requests.post(url, auth=authentication, verify=False)
    token = response.json()['Token']
    return token

def get_device_list():
    token = get_token()
    url = "https:// " + dna_center_url + "/dna/intent/api/v1/network-device"
    header = {'x-auth-token': token, 'content-type': 'application/json'}
    response = requests.get(url, headers=header)
    device_list = response.json()
    print(json.dumps(device_list, indent=4))

if __name__ == "__main__":
    get_device_list()

```



Section:
Explanation:

QUESTION 190

DRAG DROP

Drag and drop the steps from the left into order on the right to create a common CI/CD pipeline process. Not all options are used.

Select and Place:

Build	step 1
Commit	step 2
Deploy	step 3
Evaluate	step 4
Test	
Regress	

Correct Answer:

Commit
 Build
 Test
 Evaluate Deploy

 Regress

Section:

Explanation:

QUESTION 191

DRAG DROP

Drag and drop the code from the bottom onto the box where the code is missing to obtain a list of network devices by using the Cisco Meraki API. Not all options are used.

Select and Place:

```

import requests

url = "https://api.meraki.com/api/v0/  /{{networkId}}/  "

payload = {}
headers = {
    'Accept': '*/*'
}

response = requests.request("  ", url, headers=headers, data=payload)

print(response.text.  ('utf8'))
  
```

-

Correct Answer:

```
import requests

url = "https://api.meraki.com/api/v0/ networks /{{networkId}}/ devices "

payload = {}
headers = {
    'Accept': '*/*'
}

response = requests.request(" GET ", url, headers=headers, data=payload)

print(response.text. encode ('utf8'))
```

teams

POST

encrypt

Section:

Explanation:

QUESTION 192

DRAG DROP

Refer to the exhibit.



CISCO SECURITY APIS

Introduction

API Workflow

- GET 1.) Find all events where Malware...
- GET 2.) Find Endpoint Details for Rem...
- PUT 3.) Nuke the Endpoint to Prevent...
- GET 4.) Find samples in Threat Grid
- GET 5.) Get all sample domains to an...
- POST 6.) Check all domains against Inv...
- GET 7.) For suspect domains get mor...
- POST 8.) Enforce on bad Domains in U...
- GET 9.) Research other Ransomware ...
- POST Generate Authentication Token ...
- POST 10.) Add custom intelligence Fee...

NGFW

- POST Generate Authentication Token
- GET Access Policies
- GET Access Rules
- GET Access Rule Details
- POST New Access Rule in Policy
- POST New Bulk Access Rule in Policy

Cisco Security APIs

The main goal of this collection to help the developer understand the various API capabilities of Cisco NG Malware Protection, Threat Grid, ISE and Umbrella. It will cover useful API features for each of the products and how to properly use them. Simple workflow is also included in the collection to *Collect* all the characteristics/signatures of the possible attack using AMP. *Validate* the collected intelligence with Threat Grid and Umbrella. *Deploy* the intelligence to the NGFW, Umbrella and ISE to protect and contain the threat.

API Workflow

GET 1.) Find all events where Malware Executed

```
https://:amp.dcloud.cisco.com/v1/events?connector_guid[]=&event_type[]=1107296272
```

Get a listing of all the events for a specific computer when the quarantine failed

PARAMS

Refer to the exhibit. Drag and drop the code from the bottom onto the box where the code is missing to construct a Python script that calls a REST API request. Not all options are used.

Select and Place:


```

import requests

url = "https://fmc-hostname/api/fmc_tid/v1/domain//tid/source"

payload = {
    "name": "Threat Grid Ransomware DNS",
    "delivery": "url",
    "uri": "https://panacea.threatgrid.com/api/v3/feeds"+
    "/ransomware-dns 2017-12-08.stix?api_key=",
    "refresh": 1440,
    "version": "1.0.0",
    "params": {
        "selfSignedServerCertificate": "true",
        "hostnameVerifier": "allow_all"
    },
    "property": {
        "ttl": 90,
        "publish": true,
        "action": "monitor"
    }
}

headers = {
    'X-auth-access-token': 'access_token',
    'Content-Type': 'application/json'
}

response = requests.post(url, headers=headers, data=payload)
print(response.text.encode('utf8'))

```

url	Encoding	base_url	Content-Type	post
request	payload			

Correct Answer:

```
import requests

url = "https://fmc-hostname/api/fmc_tid/v1/domain//tid/source"

payload = {
    "name": "Threat Grid Ransomware DNS",
    "delivery": "url",
    "uri": "https://panacea.threatgrid.com/api/v3/feeds"+
    "/ransomware-dns 2017-12-08.stix?api_key=",
    "refresh": 1440,
    "version": "1.0.0",
    "params": {
        "selfSignedServerCertificate": "true",
        "hostnameVerifier": "allow_all"
    },
    "property": {
        "ttl": 90,
        "publish": true,
        "action": "monitor"
    }
}

headers = {
    'X-auth-access-token': 'access_token', 'Content-Type': 'application/json'
}

response = requests.request("POST", url,
    headers=headers, data = base_url )
print(response.text.encode('utf8'))
```

	Encoding		post
	payload		



Section:
Explanation:

QUESTION 193
DRAG DROP
Refer to the exhibit.

Object Lookup

Use the `MoDirectory.lookupByDn` to look up an object within the MIT object tree by its distinguished name (DN). This example looks for an object called 'uni':

```
uniMo = moDir.lookupByDn('uni')
```

A successful lookup operation returns a reference to the object that has the specified DN.

You can also look up an object by class. This example returns a list of all objects of the class 'polUni':

```
uniMo = moDir.lookupByClass('polUni')
```

You can add a filter to a lookup to find specific objects. This example returns an object of class 'fvTenant' whose name is 'Tenant1':

```
tenant1Mo = moDir.lookupByClass("fvTenant", propFilter='and(eq(fvTenant.name, "Tenant1"))')
```

Refer to the exhibit. Drag and drop the code from the bottom onto the box where the code is missing to add a subnet to each bridge domain in the Ten1 tenant. Not all options are used.

Select and Place:

```

from cobra.model import fv
from cobra.mit.request import ClassQuery, DnQuery
import cobra.mit.access
import cobra.mit.session

tenname = "Ten1"
ls = cobra.mit.session.LoginSession(
    'https://10.100.1.200', "admin", "Lab123!3")

aci = cobra.mit.access.MoDirectory(ls)
aci.login()
c = cobra.mit.request.ConfigRequest()

qry1 =  (f'uni/tn-{tenname}')
fvTenant = aci.query(qry1)[0]

qry2 =  ("fvBD")
qry2.propFilter = f'and(wcard(fvBD.dn,"{fvTenant.dn}"))'
fvBDs = aci.query(qry2)

i=0
for fvBD in fvBDs:
    fvsubnet = cobra.model.fv.Subnet(, ip=f'10.114.{i}.1/24')
    c.addMo(fvBD)
    aci. (c)
    i+=

```

Correct Answer:

```

from cobra.model import fv
from cobra.mit.request import ClassQuery, DnQuery
import cobra.mit.access
import cobra.mit.session

tenname = "Ten1"
ls = cobra.mit.session.LoginSession(
    'https://10.100.1.200', "admin", "Lab123!3")

aci = cobra.mit.access.MoDirectory(ls)
aci.login()
c = cobra.mit.request.ConfigRequest()

qry1 =  (f'uni/tn-{tenname}')
fvTenant = aci.query(qry1)[0]

qry2 =  ("fvBD")
qry2.propFilter = f'and(wcard(fvBD.dn,"{fvTenant.dn}"))'
fvBDs = aci.query(qry2)

i=0
for fvBD in fvBDs:
    fvsubnet = cobra.model.fv.Subnet(, ip=f'10.114.{i}.1/24')
    c.addMo(fvBD)
    aci. (c)
    i+=

```



Section:

Explanation:

QUESTION 194

DRAG DROP

Drag and drop characteristics from the left onto the infrastructure management methodologies on the right.

Select and Place:

exposes RESTCONF as Northbound API	Device Level
uses REST as Northbound API	
supported by standards such as YANG models	Controller Level
integrates to ITSM tools using Westbound APIs	

Correct Answer:

	Device Level
	exposes RESTCONF as Northbound API
	supported by standards such as YANG models
	Controller Level
	uses REST as Northbound API
	integrates to ITSM tools using Westbound APIs

Vdumps

Section:

Explanation:

QUESTION 195

DRAG DROP

Refer to the exhibit.

```
user@host1:~/tmp$ cat Dockerfile
# Dockerfile to install traceroute
FROM ubuntu
MAINTAINER User One (userone@cisco.com)
RUN apt-get update && apt-get install traceroute
```

Refer to the exhibit. Drag and drop the Dockerfile contents from the left onto the functions on the right that create a container image to run traceroute to track network path to specific targets. Not all options are used.

Select and Place:

document author	FROM ubuntu
command to execute	MAINTAINER User One (userone@cisco.com)
initializes a new build stage	RUN apt-get update && apt-get install traceroute
copies new files or directories	
sets the userid	

Correct Answer:

	initializes a new build stage
	document author
	command to execute
copies new files or directories	
sets the userid	



Section:

Explanation:

QUESTION 196

DRAG DROP

Drag and drop the code from the bottom onto the box where the code is missing to enable ports on a switch by using RESTCONF. Not all options are used.

Select and Place:

```

def enable_function(if_name, if_status, if_type):
    headers = {'Accept': 'application/yang-data+json',
              'Content-Type': 'application/ [ ] '}
    payload = {
        "[ ]": {
            "name": if_name,
            "enabled": if_status,
            "type": if_type,
        }
    }
    [ ] = 'https://192.168.1.1:8443'
    restconf_url = '/restconf/data/ietf-interfaces:interfaces/interface'
    res = requests.put(f'{base_url}{restconf}={if_name}',
                      headers=headers, json=payload,
                      auth=('cisco', 'secret'), verify=False)

enable_function('Loopback1, true, ' [ ] ')

```

- [] yang-data+json
- [] application/xml
- [] ietf-interfaces:interface
- [] iana-if-type:softwareLoopback
- [] base_url
- [] run_function
- [] iana-if-type:ethernetCsmacd

Correct Answer:

```

def enable_function(if_name, if_status, if_type):
    headers = {'Accept': 'application/yang-data+json',
              'Content-Type': 'application/ [ ] yang-data+json '}
    payload = {
        "[ ] ietf-interfaces:interface": {
            "name": if_name,
            "enabled": if_status,
            "type": if_type,
        }
    }
    [ ] base_url = 'https://192.168.1.1:8443'
    restconf_url = '/restconf/data/ietf-interfaces:interfaces/interface'
    res = requests.put(f'{base_url}{restconf}={if_name}',
                      headers=headers, json=payload,
                      auth=('cisco', 'secret'), verify=False)

enable_function('Loopback1, true, ' [ ] iana-if-type:ethernetCsmacd ')

```

- [] application/xml
- [] iana-if-type:softwareLoopback
- [] run_function

Section:
Explanation:



QUESTION 197

DRAG DROP

Drag and drop the code from the bottom onto the box where the code is missing to complete the error path scenario. Not all options are used.

Select and Place:

```
import pytest
class Player:
    def __init__(self, name):
        self.name = name
        [ ]
    def set_rating(self, rating):
        if rating or rating is int(0):
            [ ]:
                raise ValueError('rating is invalid', rating)
            else:
                [ ]
                return True
        else:
            return False
@pytest.fixture
def player():
    player = Player('User One')
    yield player
    del player
@pytest.mark.usefixtures('player')
class TestErrorPathSetRating:
    def test_add_higher_rating(self, player):
        with pytest.raises(ValueError):
            player.set_rating(101)
    def test_add_invalid_rating(self, player):
        with pytest.raises(ValueError):
            [ ]
    def test_add_lower_rating(self, player):
        with pytest.raises(ValueError):
            player.set_rating(-1)
```



- | | |
|--------------------------------|--------------------------------|
| player.set_rating(0) | if rating != 0: |
| player.set_rating(85) | if rating or rating is int(0): |
| if rating < 1 or rating > 100: | self.rating = rating |
| self.rating = None | |

Correct Answer:


```

import pytest
class Player:
    def __init__(self, name):
        self.name = name
        self.rating = None
    def set_rating(self, rating):
        if rating or rating is int(0):
            if rating < 1 or rating > 100:
                raise ValueError('rating is invalid', rating)
            else:
                if rating != 0:
                    return True
        else:
            return False
@pytest.fixture
def player():
    player = Player('User One')
    yield player
    del player
@pytest.mark.usefixtures('player')
class TestErrorPathSetRating:
    def test_add_higher_rating(self, player):
        with pytest.raises(ValueError):
            player.set_rating(101)
    def test_add_invalid_rating(self, player):
        with pytest.raises(ValueError):
            player.set_rating(0)
    def test_add_lower_rating(self, player):
        with pytest.raises(ValueError):
            player.set_rating(-1)

```

player.set_rating(85)	if rating or rating is int(0):
	self.rating = rating

Section:
Explanation:

QUESTION 198
DRAG DROP



class Native.Interface.FastEthernet

Bases: Entity

Class Hierarchy: Native Interface FastEthernet

This class represents configuration data.

FastEthernet IEEE 802.3

name(key)
 type: str
 pattern: ([0-9]/)([0-9]/)([1-3][0-9]|4[0-8]|([0-9])\.[0-9]+)?

description
 Interface specific description
 type: str

flowcontrol
 Configure flow operation
 type: Flowcontrol

isis
 IS-IS commands
 type: Isis

keepalive
 Enable keepalive
 type: bool

Refer to the exhibit. Drag and drop the code snippets from the bottom to the blanks in the code to enable keepalive for the FastEthernet 2/0 interface. Not all options are used.

Select and Place:

```
from ydk.services import CRUDService
from ydk.providers import NetconfServiceProvider as nc
from ydk.models.cisco_ios_xe import Cisco_IOS_XE_native as model
ip = '10.10.20.48'
protocol = 'ssh'
username = 'developer'
password = 'P@ssW0rd'
port = 830
provider = nc(address=ip, port=port, username=username, password=password, protocol=protocol)
crud = CRUDService()
```

```
interface.name = '2/0'
```

```
if interface_data:
    print('Keepalive is enabled.')
else:
    print('Keepalive is not enabled.')
```

```
interface_data = crud.update(provider, interface)
```

```
interface.keepalive = True
```

```
interface_data = crud.read(provider, interface)
```

```
interface = model.Native.Interface.FastEthernet()
```

```
interface.FastEthernet.keepalive_settings.keepalive = True
```

```
interface = model.Native.Interface()
```

Correct Answer:



```

from ydk.services import CRUDService
from ydk.providers import NetconfServiceProvider as nc
from ydk.models.cisco_ios_xe import Cisco_IOS_XE_native as model
p = '10.10.20.48'
rtcl = 'ssh'
ser = 'developer'
sw = 'P@s$W0rD'
prt = 830
rovider = nc(address=ip, port=port, username=user, password=psw, protocol=prtcl)
rud = CRUDService()

interface = model.Native.Interface.FastEthernet()
interface.name = '2/0'
interface.keepalive = True
interface_data = crud.update(provider, interface)
if interface_data:
    print('Keepalive is enabled.')
else:
    print('Keepalive is not enabled.')

interface_data = crud.read(provider, interface)

interface.FastEthernet.keepalive_settings.keepalive = True
interface = model.Native.Interface()

```

Section:

Explanation:

Cisco YANG Data Models: Cisco YANG Models
 YANG Development Kit (YDK): YDK Documentation

QUESTION 199

Which type of OWASP threat forges a malicious HTTP request into an application?

- A. Clickjacking
- B. SQL Injection
- C. CSRF
- D. XSS

Correct Answer: C

Section:

Explanation:

Cross-Site Request Forgery (CSRF) is a type of attack that forges a malicious HTTP request and sends it from a user's browser to a different site where the user is authenticated. The attacker tricks the user into executing unwanted actions on a web application in which the user is currently authenticated. This can lead to unauthorized actions being performed on the user's behalf.

Cisco DevNet Associate Certification Guide
 OWASP CSRF Prevention Cheat Sheet

QUESTION 200

Refer to the exhibit.



```

1  #!/bin/bash
2  useradd $1
3  groupadd $2
4  mkdir /opt/scripts
5  cp *.py /opt/scripts
6  cd /opt/scripts
7  ls *.py | while read file;
8     do
9         echo $file >> content.txt;
10        chmod u+x $file;
11        chown $1:$2 $file
12    done

```

An engineer must add new users and set privileges for executing a few Python scripts. The engineer prepares a Bash script to automate this task. The script ds a user and a group from the command-line arguments, creates a directory, and copies the Python scripts to it. The script then changes to the directory and lists the scripts, used on the script workflow, which process is being automated within the loop by using the list of Python scripts?

- A. removing the files that are not Python, listing the Python files, and assigning execution privileges to the initially created user and group.
- B. assigning execution privileges to everyone and changing the ownership to the initially created user and group
- C. assigning execution privileges to the owner, setting the user and group owner to the scripts that were initially created, and storing the script names in a file.
- D. creating a file with the content of all the files, assigning execution permissions to each script, and then changing ownership to the initially created user and group.

Correct Answer: C

Section:

Explanation:

The provided Bash script performs the following steps:

Adds a new user with useradd.

Adds a new group with groupadd.

Creates a directory /opt/scripts.

Copies all Python scripts (*.py) to the /opt/scripts directory.

Changes to the /opt/scripts directory.

Lists the Python scripts and processes each script in a loop.

Within the loop, the script:

Appends the script name to a file content.txt.

Assigns execution privileges to the script (chmod u+x).

Changes the ownership of the script to the newly created user and group (chown \$1:\$2).

This workflow automates the process of setting execution permissions for the owner (the newly created user) and assigning the user and group ownership to the scripts. It also stores the script names in content.txt.

Cisco DevNet Associate Certification Guide

Bash Scripting Documentation



QUESTION 201

What is a component of the first stage of an application development CI/CD pipeline?

- A. developer writing the initial lines of code
- B. triggering of the automated build phase
- C. commitment and pushing of code into a version control system
- D. triggering of the automated testing phase

Correct Answer: C

Section:

Explanation:

The first stage of a CI/CD (Continuous Integration/Continuous Deployment) pipeline typically involves developers committing and pushing code into a version control system (VCS) such as Git. This stage sets the foundation for subsequent automated processes.

Initial Commit: The act of committing code means saving changes to the local repository.

Push to Repository: Pushing code sends the committed changes to a remote repository, making them available for the CI/CD pipeline to trigger automated processes such as building and testing.

Continuous Integration Fundamentals: CI/CD Overview

QUESTION 202

Which two HTTP code series relate to errors? (Choose two.)

- A. 400
- B. 200
- C. 500
- D. 300
- E. 100

Correct Answer: A, C

Section:

Explanation:

HTTP status codes are divided into five classes:

1xx (Informational): Request received, continuing process

2xx (Success): The action was successfully received, understood, and accepted

3xx (Redirection): Further action must be taken to complete the request

4xx (Client Error): The request contains bad syntax or cannot be fulfilled

5xx (Server Error): The server failed to fulfill an apparently valid request

Thus, the series that relate to errors are:

400 series (Client Error)

500 series (Server Error)

RFC 7231, Section 6: HTTP/1.1 Semantics and Content



QUESTION 203

DRAG DROP

Drag and drop the characteristics from the left onto the corresponding categories on the right to compare RESTful and RPC APIs.

Select and Place:

stateless	RESTful
session-based	
must use HTTP	RPC
sometimes uses HTTP	

Correct Answer:



Section:

Explanation:

QUESTION 204

DRAG DROP

Drag and drop the code from the bottom onto the box where the code is missing to authenticate with the Cisco DNA Center REST API by using basic authentication. Then generate a token for later use. Not all options are used.

Select and Place:

```
import requests
from requests.auth import HTTPBasicAuth

BASE_URL = 'https://sandboxdnac2.cisco.com'
AUTH_URL = '/dna/system/api/v1/ [ ] '
USERNAME = 'admin'
PASSWORD = 'qwer1234!'

response = requests. [ ] (BASE_URL + AUTH_URL,
    auth=HTTPBasicAuth([ ], [ ]))
token = response.json()['Token']
print(token)
```



- auth/basic
- /auth/token
- post
- get
- USERNAME
- Token
- PASSWORD

Correct Answer:

```

import requests
from requests.auth import HTTPBasicAuth

BASE_URL = 'https://sandboxnac2.cisco.com'
AUTH_URL = '/dna/system/api/v1/ /auth/token '
USERNAME = 'admin'
PASSWORD = 'qwer1234!'

response = requests. post (BASE_URL + AUTH_URL,
    auth=HTTPBasicAuth( USERNAME , PASSWORD ))
token = response.json()['Token']
print(token)

```

auth/basic			get
	Token		

Section:

Explanation:

QUESTION 205

DRAG DROP

Drag and drop the capabilities from the left onto the Cisco Network Management Platforms that support the capabilities on the right.



Select and Place:

receives AI/ML network performance insights, and uses guided issue remediation	Meraki
achieves automation through common policy for data center operations	Cisco DNA Center
establishes an overlay fabric to connect data centers, branches, and campuses through vManage	ACI
provisions and manages networks, networking devices, and clients through a fully managed cloud service	Cisco SD-WAN
supports multivendor networks through Network Element Drivers	NSO

Correct Answer:

	provisions and manages networks, networking devices, and clients through a fully managed cloud service
	receives AI/ML network performance insights, and uses guided issue remediation
	achieves automation through common policy for data center operations
	establishes an overlay fabric to connect data centers, branches, and campuses through vManage
	supports multivendor networks through Network Element Drivers

Section:

Explanation:

QUESTION 206

DRAG DROP

An engineer must make changes on a network device through the management platform API. The engineer prepares a script to send the request and analyze the response, check headers, and read the body according to information inside response headers. Drag and drop the HTTP header values from the left onto the elements of an HTTP response on the right.

Select and Place:

16974	cache-control
no-store, must-revalidate	content-length
timeout=5, max=100	keep-alive
application/json;charset=UTF-8	content-type

Correct Answer:

	no-store, must-revalidate
	16974
	timeout=5, max=100
	application/json;charset=UTF-8

Section:

Explanation:

QUESTION 207

DRAG DROP

Refer to the exhibit.

Refer to the exhibit. Drag and drop the actions from the left that the contents of this Dockerfile accomplish onto the right. Not all options are used.

Select and Place:

Inject the image myImage.	step 1
Pull the image myImage.	step 2
Execute the "data" script under "/bin/sh".	step 3
Establish a volume whose root is "/data".	
Put the user in a shell inside the container.	

Correct Answer:

Inject the image myImage.	Pull the image myImage.
	Establish a volume whose root is "/data".
Execute the "data" script under "/bin/sh".	Put the user in a shell inside the container.

Section:

Explanation:

QUESTION 208

DRAG DROP

Refer to the exhibit.

 Vdumps

`get_interface_info_by_id(device_id, headers=None, **request_parameters)` [\[source\]](#)

Returns list of interfaces by specified device.

Parameters

- `device_id` (*basestring*) - Device ID.
- `headers` (*dict*) - Dictionary of HTTP Headers to send with the Request.
- `**request_parameters` - Additional request parameters (provides support for parameters that may be added in the future).

Returns

JSON response. Access the object's properties by using the dot notation or the bracket notation.

Return type

MyDict

Raises

- `TypeError` - If the parameter types are incorrect.
- `MalformedRequest` - If the request body created is invalid.
- `ApiError` - If the DNA Center cloud returns an error.

Refer to the exhibit. Drag and drop the code from the bottom onto the box where the code is missing to return the number of interfaces on a network device by using the Cisco DNA Center SDK. Not all options are used.

Select and Place:

```

from dnacentersdk import DNACenterAPI
base_url = 'https://10.9.11.226'
[ ] = 'da4606c3-63ad-4ed4-8f35-6bfec7c2df04'

dnac = [ ](username='cisco', password='secret',
base url=base url, version='1.3.3', verify=False)

[ ] = [item['portName'] for item in
dnac. [ ].get_interface_info_by_id(device_id)['response']]

# Check the number of ports on the device
print(f'The list of interfaces contains {len(port_list)} items.')

# Output
# The list of interfaces contains 54 items.

```

 Vdumps

router_id device_id DNACenterAPI DNAC

port_list routers devices

Correct Answer:

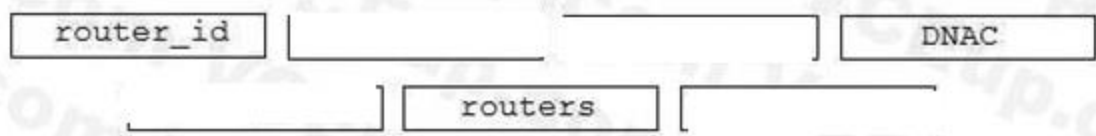
```
from dnacentersdk import DNACenterAPI
base_url = 'https://10.9.11.226'
device_id = 'da4606c3-63ad-4ed4-8f35-6bfec7c2df04'

dnac = DNACenterAPI (username='cisco', password='secret',
                    base_url=base_url, version='1.3.3', verify=False)

port_list = [item['portName'] for item in
             dnac.devices.get_interface_info_by_id(device_id)['response']]

# Check the number of ports on the device
print(f'The list of interfaces contains {len(port_list)} items.')

# Output
# The list of interfaces contains 54 items.
```



Section:
Explanation:

QUESTION 209
DRAG DROP
Refer to the exhibit.



POST /v1/meetings

Body Parameters

title
string Required
Meeting title. The title can be a maximum of 128 characters long.

agenda
string
Meeting agenda. The agenda can be a maximum of 2500 characters long.

password
string
Meeting password. Must conform to the site's password complexity settings. Read [password management](#) for details. If not specified, a random password conforming to the site's password rules will be generated automatically.

start
string Required
Date and time for the start of meeting in any [ISO 8601](#) compliant format. start cannot be before current date and time or after end. Duration between start and end cannot be shorter than 10 minutes or longer than 24 hours.

end
string Required
Date and time for the end of meeting in any [ISO 8601](#) compliant format. end cannot be before current date and time or before start. Duration between start and end cannot be shorter than 10 minutes or longer than 24 hours.

Vdumps

Refer to the exhibit. A bespoke meeting booking system must be integrated with Cisco Webex so that meetings are created automatically. Drag and drop the code from the bottom onto the box where the code is missing to create a sample meeting. Not all options are used.

Select and Place:

```

import requests, json

[ ] = 'eyJhbGc ... yJbN8'

headers = {
    'Authorization': f'Bearer {token}',
    'Content-Type': 'application/json'
}

payload = {
    "title": "DevNet Webex Discussion",
    "password": "AGrtg1234",
    "start": "2020-11-10T15:00:00Z",
    "end": "2020-11-10T17:00:00Z",
    "enabledAutoRecordMeeting": False,
    "allowAnyUserToBeCoHost": False
}

response = requests.request(" [ ] ", f'{BASE_URL}/ [ ] ',
    headers=headers, data=json.dumps( [ ] ))
print(response.text.encode('utf8'))

```

payload	PUT	token
vl/meeting	vl/meetings	POST

Correct Answer:

```

import requests, json

token = 'eyJhbGc ... yJbN8'

headers = {
    'Authorization': f'Bearer {token}',
    'Content-Type': 'application/json'
}

payload = {
    "title": "DevNet Webex Discussion",
    "password": "AGrtg1234",
    "start": "2020-11-10T15:00:00Z",
    "end": "2020-11-10T17:00:00Z",
    "enabledAutoRecordMeeting": False,
    "allowAnyUserToBeCoHost": False
}

response = requests.request(" POST ", f'{BASE_URL}/ vl/meetings ',
    headers=headers, data=json.dumps( payload ))
print(response.text.encode('utf8'))

```

[]	PUT	[]
vl/meeting	[]	[]

Section:

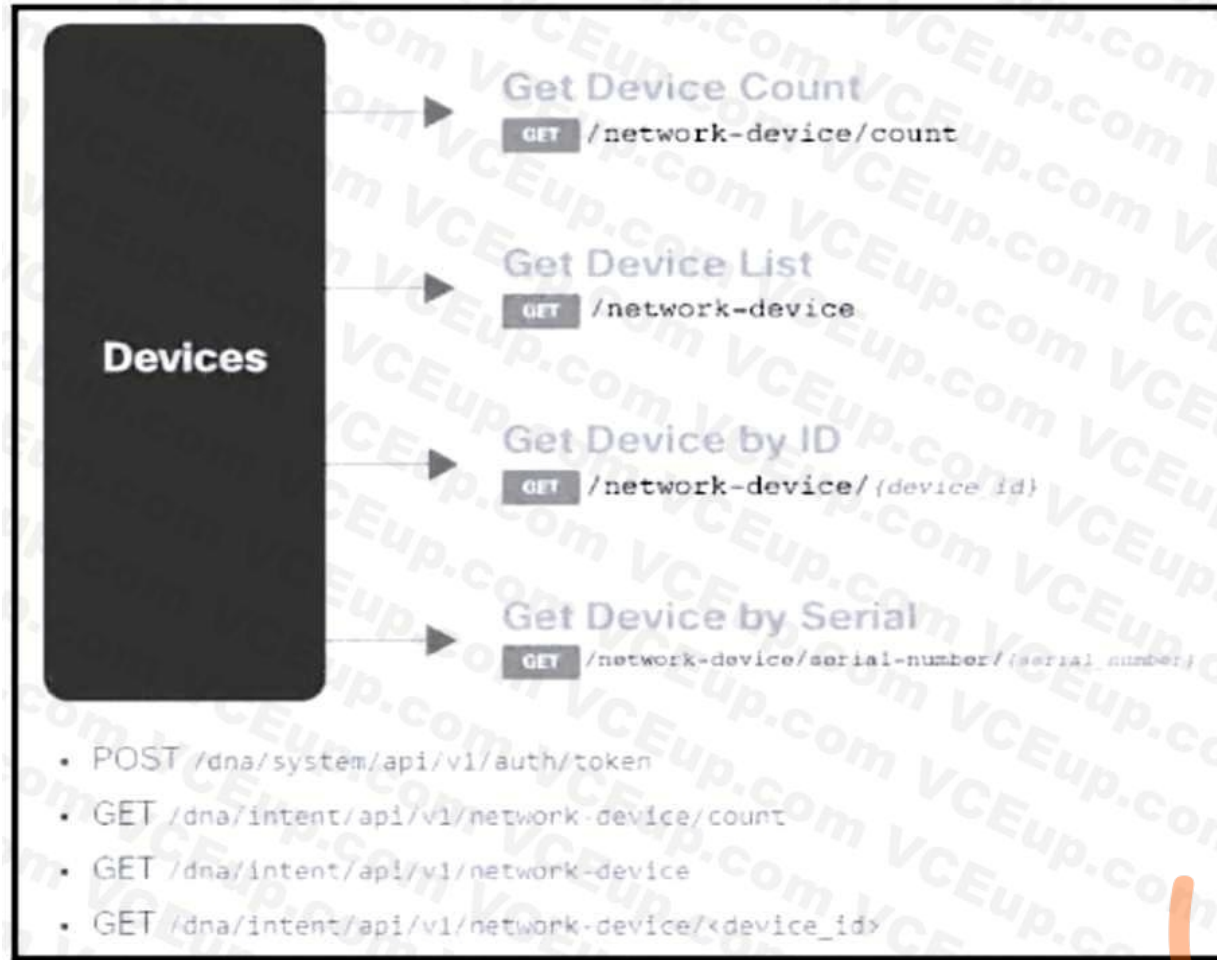
Explanation:

QUESTION 210

DRAG DROP



Refer to the exhibit.



Refer to the exhibit. Drag and drop the code from the bottom onto the box where the code is missing to construct a request that generates a security token and gets a list of network devices. Not all options are used.

Select and Place:

```
import json, requests, urllib3
from requests.auth import HTTPBasicAuth
from config import host, username, password

headers = { 'content-type': "application/json", 'x-auth-token': "" }
def dna_api_auth(host, username, password):
    url = "https://{}/api/system/v1/auth/token".format(host)
    response = .post(url, auth=HTTPBasicAuth(username, password),
    headers=headers, verify=False)
    return response.json()["Token"]

def list_dna_devices(token):
    url = "https://{}/api/v1/network-device".format(host)
    headers["x-auth-token"] = token
    response = requests.get(url, headers=headers, verify=False)
    data = .json()
    for item in data['response']:
        print(item["hostname"])

token =  (host, username, password)
 (token)
```

- | | | | |
|----------|------------------|--------------|----------|
| response | reply | dna_api_auth | requests |
| json | list_dna_devices | list_devices | |

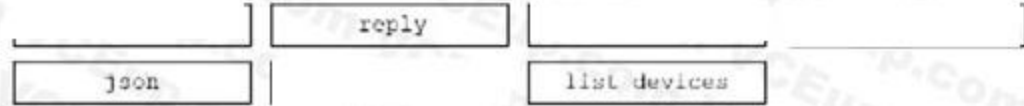
Correct Answer:

```
import json, requests, urllib3
from requests.auth import HTTPBasicAuth
from config import host, username, password

headers = { 'content-type': "application/json", 'x-auth-token': "" }
def dna_api_auth(host, username, password):
    url = "https://{}/api/system/v1/auth/token".format(host)
    response = requests.post(url, auth=HTTPBasicAuth(username, password),
                             headers=headers, verify=False)
    return response.json()["Token"]

def list_dna_devices(token):
    url = "https://{}/api/v1/network-device".format(host)
    headers["x-auth-token"] = token
    response = requests.get(url, headers=headers, verify=False)
    data = response.json()
    for item in data['response']:
        print(item["hostname"])

token = dna_api_auth(host, username, password)
list_dna_devices(token)
```



Section:

Explanation:

QUESTION 211

Refer to the exhibit.



```
interface GigabitEthernet0/0/0
no ip address
negotiation auto
!
interface GigabitEthernet0/0/0.10
encapsulation dot1Q 20
ip address 192.168.20.2 255.255.255.0
!
interface GigabitEthernet0/0/2
ip address 173.38.153.102 255.255.255.252
ip nat outside
negotiation auto
!
ip nat pool NAT_POOL 42.42.4.2 42.42.4.2 netmask 255.255.255.0
ip nat inside source list 42 pool NAT_POOL overload
access-list 42 permit 192.168.0.0 0.0.42.255
```

A company recently acquired new IP-based security cameras. After discussion with the engineering team, they decide to segment the security camera traffic in the rest...The engineer assigns the new VLAN 10 for the security camera traffic. After all the devices are configured, it seems as if the cameras cannot access the Internet, .. a few minutes of debugging, the engineer restricts the problem to the router configuration. What is the cause of the issue?

- A. A specific permit statement for the 192.168.20.0/24 subnet is missing from the access list.
- B. A NAT inside rule is missing from the GigabitEthernet0/0/0.10 interface.
- C. A specific permit statement for the 192.168.10.0/24 subnet is missing from the access list.
- D. A NAT inside rule is missing from the GigabitEthernet0/0/0 interface.

Correct Answer: C

Section:

Explanation:

The exhibit shows the router configuration for NAT (Network Address Translation). To allow traffic from the security cameras to access the Internet, the access list needs to include a permit statement for the 192.168.10.0/24 subnet.

Access List Configuration: The access list (ACL) should permit traffic from the security camera VLAN (192.168.10.0/24).

NAT Configuration: The NAT configuration uses an ACL to determine which internal IP addresses are translated to the public IP address pool.

Missing Permit Statement: Without a specific permit statement for the 192.168.10.0/24 subnet, the router does not translate the IP addresses from this subnet, resulting in a lack of Internet access for the security cameras.

Cisco NAT Configuration Guide: NAT Configuration

QUESTION 212

Refer to the exhibit.

```
1 --- file2.py 2020-09-26 15:27:49.000000000 -0600
2 +++ file1.py 2020-09-26 15:27:11.000000000 -0600
3 @@ -14,7 +14,7 @@
4  USERNAME = '<USERNAME>' # Example USERNAME = 'devnetuser'
5  PASSWORD = '<PASSWORD>' # Example PASSWORD = 'Cisco123!'
6
7  -
8  +auth = HTTPBasicAuth(USERNAME, PASSWORD)
9
10 # URLs
11 DEVICES_URL = '/dna/intent/api/v1/network-device'
12 @@ -23,7 +23,7 @@
13
14 def get_dnac_jwt_token():
15     response = requests.post(BASE_URL + AUTH_URL,
16 -                             auth=HTTPBasicAuth(USERNAME, PASSWORD),
17 +                             auth=auth,
18                             verify=False)
19     token = response.json()['Token']
20     return token
21 @@ -89,8 +89,9 @@
22     'destIP': dst_ip_address,
23     'inclusions': [
24         'INTERFACE-STATS',
25 +         'DEVICE-STATS',
26         'ACL-TRACE',
27         'DEVICE-STATS'
28 +         'QOS-STATS'
29     ],
30     'protocol': 'icmp'
31 }
```

An engineer is comparing two files by using the unified diff format. What is determined by the content in the file2.py file?

- A. Line 16 of file2.py is `auth=HTTPBasicAuth(USERNAME, PASSWORD)`.
- B. Line 17 of file2.py is `auth = HTTPBasicAuth{USERNAME, PASSWORD}`.
- C. Line 93 of file2.py is `'DEVICE-STATS'`.
- D. Line 92 of file2.py is `'DEVICE-STATS'`.

Correct Answer: C

Section:

Explanation:

The unified diff format is used to display differences between two files. The content of the file2.py file shows the added lines in the comparison.

Unified Diff Format: The format uses + to indicate lines added in file2.py and - to indicate lines removed.

Line Addition: Line 93 of file2.py has the `'DEVICE-STATS'` line, as indicated by the + symbol in the diff output.

Understanding Unified Diff Format: Unified Diff

QUESTION 213

Refer to the exhibit.

```
1 FROM python:slim
2
3 ADD . /app
4 ADD ./appdynamics.cfg /etc
5 WORKDIR /app
6 RUN apt-get update
7
8 ENTRYPOINT ["/startup.sh"]
9
10
```

A developer needs to create a Docker image that listens on port 5000. Which code snippet must be placed onto the blank in the code?

- A. PORT 5000
- B. LISTEN 5000
- C. EXPOSE 5000
- D. OPEN 5000

Correct Answer: C

Section:

Explanation:

The EXPOSE instruction in a Dockerfile informs Docker that the container listens on the specified network ports at runtime.

EXPOSE Instruction: It does not publish the port but indicates to Docker that the application inside the container uses this port.

Listening Port: The Docker container will be configured to listen on port 5000 using EXPOSE 5000.

Dockerfile

Reference: Dockerfile EXPOSE

**QUESTION 214**

Refer to the exhibit.

```

pyang -f tree ietf-interfaces.yang

module: ietf-interfaces
+--rw interfaces
|   +--rw interface* [name]
|   |   +--rw name                string
|   |   +--rw description?        string
|   |   +--rw type                 identityref
|   |   +--rw enabled?            boolean
|   |   +--rw link-up-down-trap-enable? enumeration (if-mib)?
|   |   +--ro admin-status        enumeration (if-mib)?
|   |   +--ro oper-status         enumeration
|   |   +--ro last-change?        yang:date-and-time
|   |   +--ro if-index            int32 (if-mib)?
|   |   +--ro phys-address?       yang:phys-address
|   |   +--ro higher-layer-if*    interface-ref
|   |   +--ro lower-layer-if*    interface-ref
|   |   +--ro speed?             yang:gauge64
|   |   +--ro statistics
|   +--ro interfaces-state
|   |   x--ro interface* [name]
|   |   |   x--ro name            string
|   |   |   x--ro type            identityref
|   |   |   x--ro admin-status    enumeration (if-mib)?
|   |   |   x--ro oper-status     enumeration
|   |   |   x--ro last-change?    yang:date-and-time
|   |   |   x--ro if-index        int32 (if-mib)?
|   |   |   x--ro phys-address?   yang:phys-address
|   |   |   x--ro higher-layer-if* interface-state-ref
|   |   |   x--ro lower-layer-if* interface-state-ref
|   |   |   x--ro speed?         yang:gauge64

```

Which type of YANG object is 'interfaces'?

- A. node
- B. subitem
- C. item
- D. container

Correct Answer: D

Section:

Explanation:

In YANG, a 'container' is a grouping of related nodes and sub-nodes. The 'interfaces' object in the YANG model is a container for interface-related data.

Container: The container statement is used to define an interior data node in the YANG data tree.

Structure: The exhibit shows that 'interfaces' encapsulates other nodes such as interface, name, description, etc., indicating that it is a container.

YANG Data Modeling Language: YANG RFC

QUESTION 215

What is a benefit of version control?

- A. application of code directly to hardware
- B. tracking development changes
- C. reuse of code-on-code patches
- D. compatibility with back-end systems

Correct Answer: B

Section:



Explanation:

Other benefits of version control include:

Collaboration: Multiple developers can work on the same project simultaneously without overwriting each other's work.

Branching and Merging: Developers can work on different features or bug fixes in isolation and merge their changes back into the main codebase once they are ready.

Backup: The entire history of the project is stored in the VCS, providing a backup that can be restored if necessary.

Cisco DevNet Associate Certification Guide

Pro Git Book, Chapter on Getting Started

QUESTION 216

A network engineer makes several API calls to Cisco Prime to retrieve a list of all devices. Each time a response is received, only a subset of the devices is returned. The engineer notices that HTTP code 429 is returned instead of 200 for some API calls. Why did the response exclude some of the devices?

- A. The API applied an offset that was indicated in the request.
- B. The API failed to identify how many items to retrieve.
- C. The API timed out the request.
- D. The API rate limited the request.

Correct Answer: D

Section:

Explanation:

HTTP status code 429 indicates that too many requests have been sent in a given amount of time, which is a sign of rate limiting. Rate limiting is used by APIs to control the amount of incoming requests to prevent abuse or overloading the server. In this case, the Cisco Prime API is limiting the number of requests the network engineer can make in a certain time period, resulting in only a subset of devices being returned and some requests being rejected with a 429 status code.

Cisco DevNet Associate Certification Guide

HTTP Status Code Definitions

**QUESTION 217**

Refer to the exhibit.

```
#!/bin/bash
#Run this script from the command line to get results
#-----
# Update all applications
# Then install a desired package -- Docker

brew update # To get the latest package lists
brew install docker

pip install --upgrade pip
pip install tensorflow
pip install pytorch

docker pull tensorflow/tensorflow:latest # Download latest stable image
```

An engineer wants to create a Bash script to automate a workflow that is related to a machine learning-based application. The engineer wants to use the application as a container and use an image from the open-source public repository. What is accomplished by the script?

- A. Create a new software package.
- B. Install and remove files.
- C. Update an existing software package.
- D. Install a software package

Correct Answer: D

Section:

Explanation:

The Bash script shown in the exhibit performs the following actions:

Updates the list of available packages using brew update.

Installs Docker using brew install docker.

Upgrades pip and installs tensorflow and pytorch using pip install.

Pulls the latest TensorFlow Docker image using docker pull tensorflow/tensorflow:latest.

This script is designed to install the necessary software packages (Docker, TensorFlow, PyTorch) required for a machine learning-based application. It does not create or remove any software packages but installs them.

Cisco DevNet Associate Certification Guide

Docker Documentation

Homebrew Documentation

Pip Documentation

QUESTION 218

A distributed application was developed using the Cisco intersight SDK. While testing the interaction between the application and the intersight API, the requests that were sent to ..server could not execute because the application was blocked by the firewall. Which URL and port must be provided to the firewall administrator to allow the traffic?

- A. svc.intersight.com port 443
- B. intersight.com port 443
- C. intersight.com port 80
- D. svc.intersight.com port 80

Correct Answer: A

Section:

Explanation:

For the distributed application developed using the Cisco Intersight SDK to communicate with the Intersight API, the traffic needs to be allowed through the firewall. The correct URL and port that need to be provided to the firewall administrator are svc.intersight.com on port 443. Port 443 is the standard port for HTTPS traffic, which ensures secure communication between the application and the Intersight server.

Cisco DevNet Associate Certification Guide

Cisco Intersight API Documentation

QUESTION 219

How do XML and JSON compare regarding functionality?

- A. XML provides more human readability than JSON.
- B. JSON natively supports arrays and XML does not natively support arrays.
- C. XML provides more support for mapping data structures into host languages than JSON.
- D. JSON provides less support for data types than XML.

Correct Answer: B

Section:

Explanation:

JSON (JavaScript Object Notation) and XML (eXtensible Markup Language) are both used for data interchange but have different characteristics:

Human Readability: JSON is often considered more human-readable because it is more concise and closely resembles the structure of programming languages like JavaScript.

Support for Arrays: JSON natively supports arrays, making it straightforward to represent lists of values. XML can represent arrays, but it does not do so natively and requires additional markup to represent arrays.

Data Mapping: XML provides extensive support for mapping data structures, including attributes and mixed content, making it suitable for complex data structures.

Data Types: JSON is lighter and provides sufficient data types for many applications (strings, numbers, objects, arrays, booleans, and null), whereas XML can be more verbose and supports a broader range of data types.

JSON vs XML - W3Schools

QUESTION 220

What is a benefit of using Python classes?

- A. They improve code organization by keeping data members and methods together.
- B. They remove the concept of inheritance to improve code readability and maintainability.
- C. They allow a Python script to import code from various independent modules.
- D. They simplify integration by testing the classes independently from other components.

Correct Answer: A

Section:

Explanation:

Python classes are a fundamental aspect of object-oriented programming (OOP) in Python. They offer several benefits: Improved Code Organization: Classes bundle data (attributes) and functionality (methods) together. This encapsulation helps keep related parts of the code together, making it easier to understand and manage. Reusability and Inheritance: Classes support inheritance, allowing the creation of new classes based on existing ones. This promotes code reuse and can lead to a more logical structure. Modularity: By using classes, you can create modules that encapsulate specific functionalities, making the code modular and easier to maintain.

Encapsulation and Abstraction: Classes allow for encapsulating data and functionality, providing a clear structure and abstraction layers, which enhance code readability and maintainability.

Python Classes and Objects - W3Schools

Python Documentation on Classes



QUESTION 221

What is a capability of model-driven programmability for infrastructure automation?

- A. compatibility with any networking device
- B. automatic version control
- C. generic APIs that are compatible with multiple platforms
- D. a single data model across the network

Correct Answer: D

Section:

Explanation:

Model-driven programmability refers to the use of a consistent data model to manage and automate network devices. Key capabilities include:

Single Data Model Across the Network: Ensures uniformity and consistency in how data is represented and managed across different network devices and platforms.

Automation and Scalability: Facilitates automated network configurations and operations, enabling scalability.

Interoperability: Using standardized models (like YANG) allows for interoperability between different network devices and management tools.

Abstracted API Interfaces: Provides abstracted and consistent APIs that can be used across multiple devices, reducing the complexity of network automation scripts.

Cisco Model-Driven Programmability

QUESTION 222

What is a feature of a MAC address?

- A. It consists of 6 hexadecimal numbers.
- B. It consists of 24 bits.

- C. It consists of 38 bits.
- D. It consists of 12 hexadecimal numbers.

Correct Answer: D

Section:

Explanation:

A MAC (Media Access Control) address is a unique identifier assigned to network interfaces for communications at the data link layer of a network segment. Key features of a MAC address include:

Length and Format: A MAC address is 48 bits in length, typically represented as 12 hexadecimal digits (e.g., 00:1A:2B:3C:4D:5E).

Hexadecimal Representation: The 12 hexadecimal digits are often grouped into pairs separated by colons or hyphens for readability (e.g., 00:1A:2B:3C:4D:5E or 00-1A-2B-3C-4D-5E).

IEEE 802 MAC Address Standard

Cisco MAC Address Basics

QUESTION 223

DRAG DROP

Drag and drop the common API styles from the left onto the requirement on the right.

Select and Place:

synchronous	Code execution does not need to wait for an API call to return before continuing.
RPC	Data is called indirectly using generic HTTP methods such as GET, POST, PUT, and DELETE.
REST	Code execution must wait for an API call to return before continuing.
asynchronous	Calls to request a service from a remote server must execute the same way as a request to the local system.

Correct Answer:

	asynchronous
	REST
	synchronous
	RPC

Section:

Explanation:

Cisco DevNet Associate Certification Guide, Sections on API styles and their characteristics

Official Cisco documentation on RESTful and RPC APIs

General programming resources on synchronous vs. asynchronous API calls

Therefore, the correct mapping is:

synchronous 'Code execution must wait for an API call to return before continuing.'

asynchronous 'Code execution does not need to wait for an API call to return before continuing.'

REST 'Data is called indirectly using generic HTTP methods such as GET, POST, PUT, and DELETE.'

RPC 'Calls to request a service from a remote server must execute the same way as a request to the local system.'

QUESTION 224

Refer to the exhibit.

```
1 import requests
2 import json
3
4 url1 = "https://webexapis.com/v1/webhooks"
5 url2 = "https://example.com/devnet-message-events"
6 token = 'eyJhbGc ... yJbNS'
7
8 headers = {
9     [REDACTED]
10    'Content-Type': 'application/json'
11 }
12
13 payload = {
14     "name": "Devnet Message Server",
15     "targetUrl": url2,
16     "resource": "messages",
17     "event": "all"
18 }
19
20 response = requests.request("POST", url1, headers=headers,
21                             * data=json.dumps(payload))
22 print(response.text.encode('utf8'))
```

A developer needs to create a webhook to send all Cisco Webex messages to a third-party tool by using the Cisco Webex API. The developer must Authenticate with the API before any API calls can be made. To automate the procedure, a Python script is used. Which code snippet must be placed onto the blank in the code?

A)

```
'Authentication': f'Bearer {token}',
```

B)

```
'Authorization': f'Basic {token}',
```

C)

```
'Authorization': f'Bearer {token}',
```

D)

```
'Authorisation': f'Bearer {token}',
```

- A. Option A
- B. Option B
- C. Option C
- D. Option D

Correct Answer: C

Section:

Explanation:

Importing Libraries: The script imports the requests and json libraries necessary for making HTTP requests and handling JSON data.

URLs Definition: The url1 variable holds the Webex API endpoint for creating webhooks, and url2 is the target URL where Webex will send the messages.

Token Handling: The token variable contains the OAuth2 token required for authentication with the Webex API.

Setting Headers: The headers dictionary includes the Content-Type set to application/json and the correct Authorization header that uses the Bearer token.

Payload Preparation: The payload dictionary contains the necessary information to create the webhook, including its name, target URL, resource type, and event.



Making the Request: The requests.request method sends a POST request to the Webex API endpoint with the specified headers and payload.

Printing the Response: The response from the Webex API is printed out, encoded in 'utf-8'.

Cisco Webex API Authentication

Cisco Webex API Guide

By correctly setting the Authorization header to include the Bearer token, the developer ensures that the script can authenticate and interact with the Webex API as required.

=====

QUESTION 225

An engineer must run tests on several Cisco controllers. Due to the nature of the task, the infrastructure must be running at all times and have access to APIs. Which Cisco DevNet source must the engineer use?

- A. DevNet Learning Labs
- B. DevNet Code Exchange
- C. DevNet Sandbox
- D. DevNet API documentation

Correct Answer: C

Section:

Explanation:

The Cisco DevNet Sandbox provides a virtual environment where engineers and developers can access and run tests on various Cisco controllers and infrastructure components. This service offers always-on and reservation-based sandboxes that simulate real-world environments.

DevNet Sandbox: The Sandbox offers various environments with preconfigured Cisco devices and APIs, allowing engineers to run tests and develop solutions without affecting live systems.

Always-On Sandboxes: These environments are always available and can be used without reservation.

API Access: The Sandbox environments include access to APIs, enabling comprehensive testing and integration.

Cisco DevNet Sandbox: DevNet Sandbox

