

BCS EXIN Specialist Certificate in OpenStack Software Neutron

Specimen Paper A

Record your surname/last/family name and initials on the Answer Sheet.

Specimen paper only. 20 multiple-choice questions – 1 mark awarded to each question. Mark only one answer to each question. There are no trick questions.

A number of possible answers are given for each question, indicated by either A. B. C. or D. Your answers should be clearly indicated on the Answer Sheet.

Pass mark is 13/20

This is a specimen paper only. The full exam is 40 multiple choice questions with a pass mark of 26/40.

Note: This exam is Kilo-based.

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- 1 What does the OpenStack Neutron project provide?
- A A catalog and repository for virtual disk images.
 - B Authentication and authorisation.
 - C Network connectivity as a service.
 - D Virtual servers on demand.
- 2 Which entities are involved when a network packet is sent in a north/south flow?
- A Instance, network node and external network.
 - B Instance, compute node, network node and external network.
 - C Instance 1, network node and instance 2.
 - D Instance 1, compute node 1, network node, compute node 2 and instance 2.
- 3 Which compute node component does Neutron Networking use to manage security groups for instances?
- A L3 agent.
 - B Linux bridges.
 - C Metadata agent.
 - D Open vSwitch agent.
- 4 OpenStack APIs are defined in two forms: a human readable specification (usually in the form of a developers' guide) and another form. Which one?
- A HTML.
 - B Python.
 - C Web Application Description Language (WADL).
 - D XML.
- 5 Which type driver is supported by the ML2 plug-in?
- A GRE.
 - B HyperV L2.
 - C L2 population.
 - D OVS.
- 6 What does the L3 router offer by default?
- A An API that lets users define network connectivity and addressing in the cloud.
 - B SNATs all traffic.

7 The OpenStack Networking Service has a widely used API extension to allow administrators and tenants to create routers to interconnect L2 networks. Many plug-ins rely on the L3 service agent to implement the L3 functionality.

What plug-in has already built-in L3 capabilities?

- A A10 Networks.
- B Embrane.
- C MidoNet.
- D Radware.

8 What is the default provider for the LBaaS service when you create a load balancer pool with the neutron command?

- A BigSwitch.
- B Floodlight.
- C HAProxy.
- D NSX.

9 What does the use of a namespace ensure?

- A Access to compute instances is controlled by security groups.
- B Adds perimeter firewall management to Networking.
- C All the L3 processes that relate to each tenant network are in a unique memory space.
- D No traffic can be received or transmitted by a VM.

10 Assume that an authorisation token is stored in the variable OS_SERVICE_TOKEN.

What is the **CORRECT** format of the cURL command to list instances for tenant ID 71443535962392?

- A `curl -X GET -H "X-Auth-Token: $OS_SERVICE_TOKEN" \`
`https://controller/v2/71443535962392/servers.`
- B `curl -X GET -H $OS_SERVICE_TOKEN" \`
`https://controller/v2/71443535962392/servers.`
- C `curl -X POST --auth_token $OS_SERVICE_TOKEN" \`
`https://controller/v2/71443535962392/servers.`
- D `curl -X POST -H "X-Auth-Token: $OS_SERVICE_TOKEN" \`
`https://controller/v2/71443535962392/servers.`

11 Which protocol is used by the OpenStack REST API to perform CRUD operations?

- A cURL.
- B HTTP.
- C PPP.
- D SSH.

12 What action is necessary when the Firefox REST client fails with authorisation errors when troubleshooting a customer network?

- A Append the username and password to the URL.
- B Append the X-Auth-Token to the URL.
- C Create a custom header and add an X-Auth-Token.
- D Set up a Firefox proxy using address 127.0.0.1:8888.

13 What does the service catalog that is returned by the Keystone service contain?

- A The authorisation token.
- B The endpoint for all services the user or tenant has access to.
- C The networks, subnets, and ports the user/tenant has access to.
- D The username and password of the requesting user.

14 Given the following information, which command provides the subnet ID, MAC and IP address for a particular router port?

```
id = c3118f56-85ab-468b-983d-1e3048acb16f
name = router_236
external_gateway_info = network_id: 7da74520-9d5e-427b-a508-213c84e69616
```

- A neutron router-port-show c3118f56-85ab-468b-983d-1e3048acb16f.
- B neutron router-port-list c3118f56-85ab-468b-983d-1e3048acb16f.
- C neutron router-port-list 7da74520-9d5e-427b-a508-213c84e69616.
- D neutron router-port-id 7da74520-9d5e-427b-a508-213c84e69616.

15 While troubleshooting a customer networking issue, you decide to set the Neutron logging level to DEBUG.

Which file **SHOULD** you edit to accomplish this?

- A /etc/neutron/neutron.conf.
- B /etc/nova/neutron.conf.
- C /etc/nova/nova.conf.
- D /var/log/neutron.conf.

- 16 You are unable to use SSH to log in to a compute instance.
- Which command **SHOULD** you execute to fix this issue?
- A iptables-rule-create --protocol tcp --port-range-min 22 \ --port-range-max 22 --direction ingress default.
 - B neutron security-group-rule-create --protocol icmp --direction ingress default.
 - C neutron security-group-rule-create --protocol tcp --port-range-min 22 \ --port-range-max 22 --direction egress default.
 - D neutron security-group-rule-create --protocol tcp --port-range-min 22 \ --port-range-max 22 --direction ingress default.
- 17 Which command can be used to list all lines in a log file containing a specific piece of text?
- A grep.
 - B more.
 - C tail.
 - D vi.
- 18 The traceoute command attempts to trace the route an IP packet would follow to an internet host. Which reply does this command get from intermediate gateways?
- A ICMP port unreachable.
 - B ICMP time exceeded.
 - C TCP acknowledge.
 - D UDP reply.
- 19 Which command is **MOST** useful for troubleshooting DNS issues?
- A bind.
 - B dig.
 - C dnsmasq.
 - D ping.
- 20 Which Wireshark feature allows filtering based on the values of fields?
- A capture filter.
 - B display filter.

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