**QUIZ • 20 MIN**

**Quiz 2: Mininet Setup**

**Submit your assignment**

**DUE**Mar 16, 12:29 PM IST

**ATTEMPTS**3 every 8 hours

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Quiz 2: Mininet Setup

Graded Quiz • 20 min

**Due** Mar 16, 12:29 PM IST

**Quiz 2: Mininet Setup**

**TOTAL POINTS 10**

**1.Question 1**

**Which of the following command is used to generate an OpenFlow network topology consisting of a single switch and 8 hosts with randomly generated MAC addresses for each host?**



sudo mn --topo linear,8 --switch ovsk --controller remote



sudo mn --topo single,3 --mac --switch ovsk --controller remote



sudo mn --topo single,8 --mac --switch ovsk --controller remote



**sudo mn --topo single,8 --switch ovsk --controller remote**

1 point

**2.Question 2**

**What is the purpose of *--mac* flag used in mininet?**



Generates random MAC addresses for the hosts.



**Generates sequential MAC addresses for the hosts, matching their IP address.**



Generates random MAC addresses for the switch ports.



Generates sequential MAC addresses for the switch ports, matching their IP address.

1 point

**3.Question 3**

**What is the output of the *nodes* command, when run in mininet, for the network topology used in the given [instructions](https://class.coursera.org/sdn1-001/wiki/Mininet_Quiz_Instructions" \t "_blank)?**



**available nodes are:**

**h1 h2 h3 s1 c0**



available nodes are: h1 h2 h3 s1 s2 s3 c0



available nodes are: h1 h2 h3 s1 c0 c1 c2



available nodes are: h1 s1 s2 c0 c1

1 point

**4.Question 4**

**Which command is used to view the IP address of host (h2), in the network topology used in the given [instructions](https://class.coursera.org/sdn1-001/wiki/Mininet_Quiz_Instructions" \t "_blank)?**



h2 ipconfig



ifconfig h2



h2 ipaddr



**h2 ifconfig**

1 point

**5.Question 5**

**What is the purpose of *dpctl*, provided with mininet?**



**To enable visibility and control over a single switch’s flow table.**



To enable visibility and control over multiple switch flow table.



Is an OpenFlow controller.

1 point

**6.Question 6**

**What is the default *idle\_timeout* value for the flows installed in the Ping Test section of the given [instructions](https://class.coursera.org/sdn1-001/wiki/Mininet_Quiz_Instructions" \t "_blank)?**

**Ans: 60**

1 point

**7.Question 7**

**Which of the following rules enable host (h1) to ping host (h2) for the network topology used in the given [instructions](https://class.coursera.org/sdn1-001/wiki/Mininet_Quiz_Instructions" \t "_blank)?**



$ dpctl add-flow tcp:127.0.0.1:6634 in\_port=2,actions=output:3

$ dpctl add-flow tcp:127.0.0.1:6634 in\_port=1,actions=output:3

****

**$ dpctl add-flow tcp:127.0.0.1:6634 in\_port=1,actions=output:2**

**$ dpctl add-flow tcp:127.0.0.1:6634 in\_port=2,actions=output:1**



$ dpctl add-flow tcp:127.0.0.1:6634 in\_port=1,actions=output:2

$ dpctl add-flow tcp:127.0.0.1:6634 in\_port=3,actions=output:2



$ dpctl add-flow tcp:127.0.0.1:6634 in\_port=1,actions=output:2

$ dpctl add-flow tcp:127.0.0.1:6634 in\_port=2,actions=output:3

$ dpctl add-flow tcp:127.0.0.1:6634 in\_port=3,actions=output:1

1 point

**8.Question 8**

**What is the maximum throughput (in mbps) for the OpenFlow network created using the following command:**

**sudo mn --topo single,3 --mac --controller remote --switch ovsk --link tc,bw=30,delay=25ms**



1 point

**9.Question 9**

**For the network created in question 8, what is the average RTT (in ms) for host (h1) when sending ping requests to host (h2)?**



1 point

**10.Question 10**

**Which of the following command ensures an average RTT of 60 ms between the host (h1) and host (h2) for the network topology shown in the given [instructions](https://class.coursera.org/sdn1-001/wiki/Mininet_Quiz_Instructions" \t "_blank)?**



sudo mn --topo single,3 --mac --controller remote --switch ovsk --link tc,delay=10ms



sudo mn --topo single,3 --mac --controller remote --switch ovsk --link tc,delay=100ms



sudo mn --topo single,3 --mac --controller remote --switch ovsk --link tc,delay=60ms



**sudo mn --topo single,3 --mac --controller remote --switch ovsk --link tc,delay=15ms**

1 point



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