ITE476 - Network II

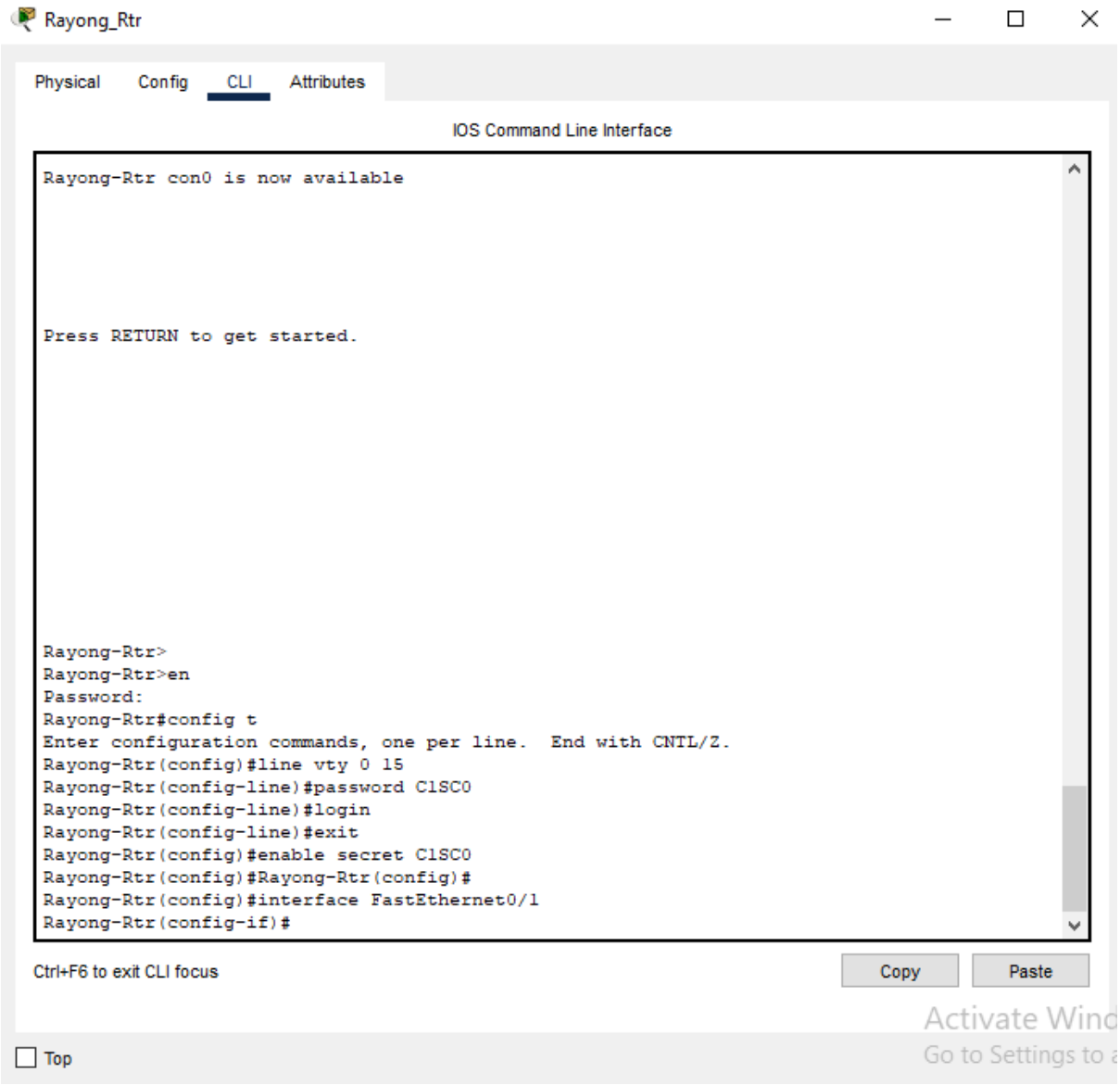
Fardina Kabir 1910080005

Lab Tasks

1. From AdminPC_BK_11, telnet to the Rayong router. Enable and telnet passwords are C1SC0. Run the show ip route command. Examine the routing table information regarding the route to the 10.10.10.0/26 subnet at HuaHin.

a. Take a screenshot of the output of the show ip route command.

Ans:



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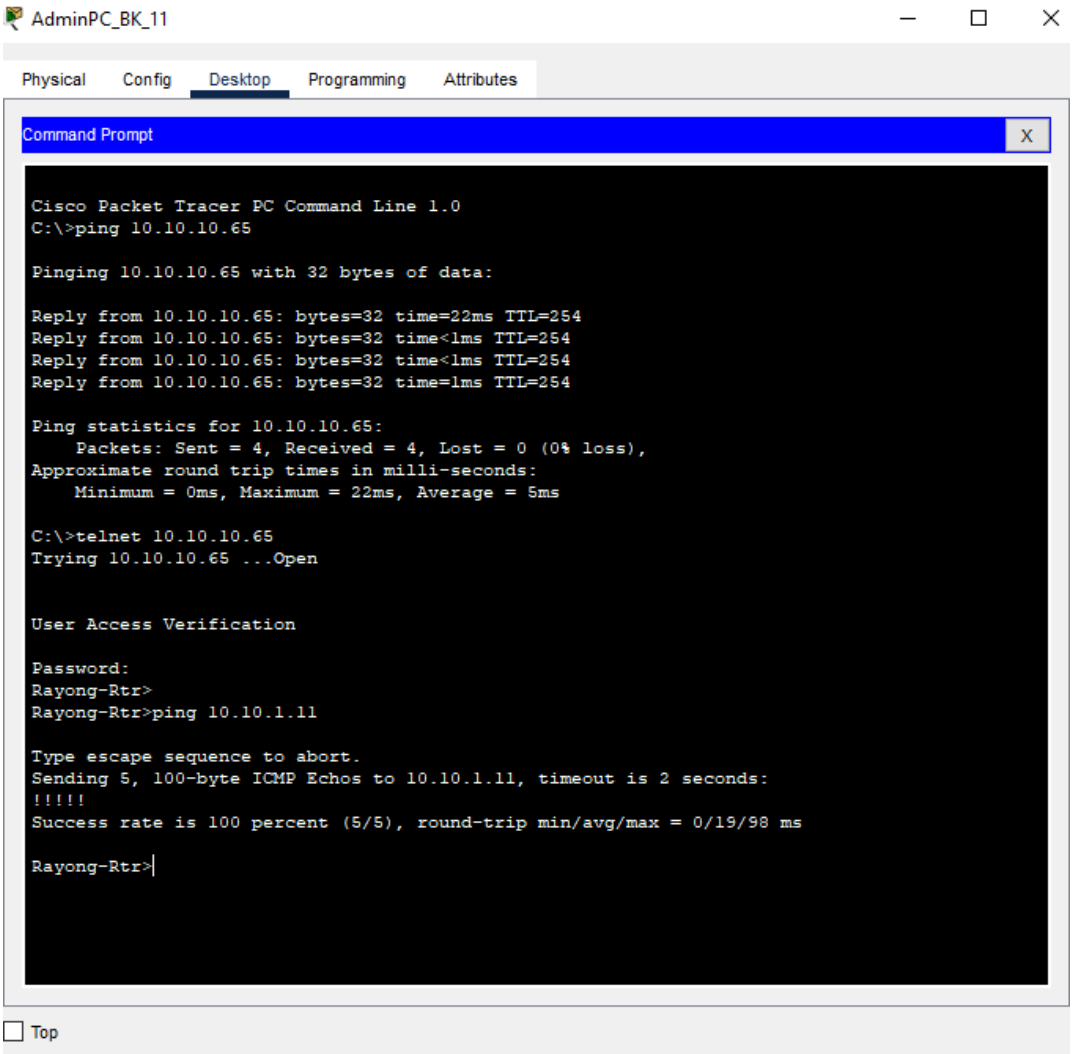
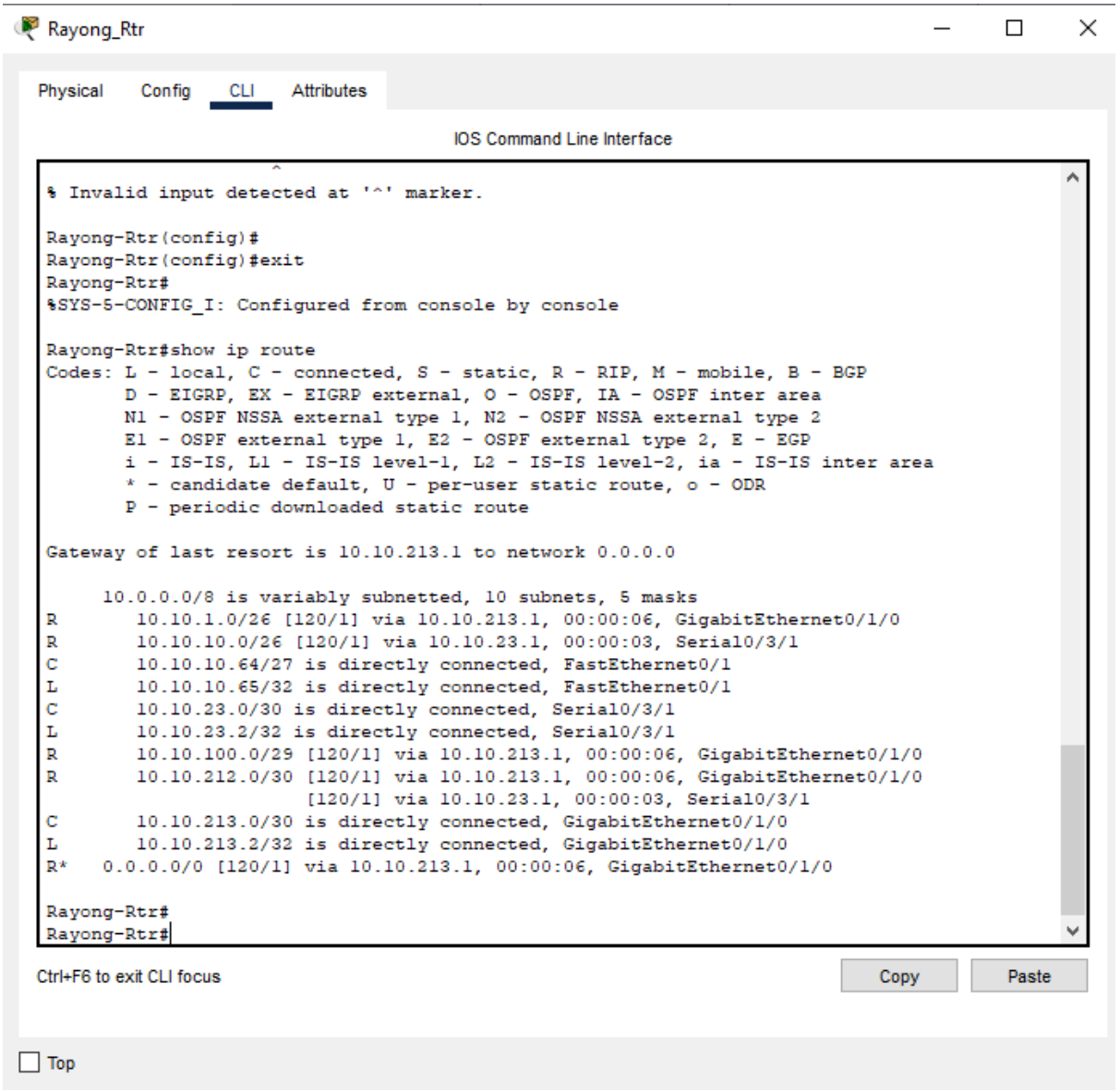
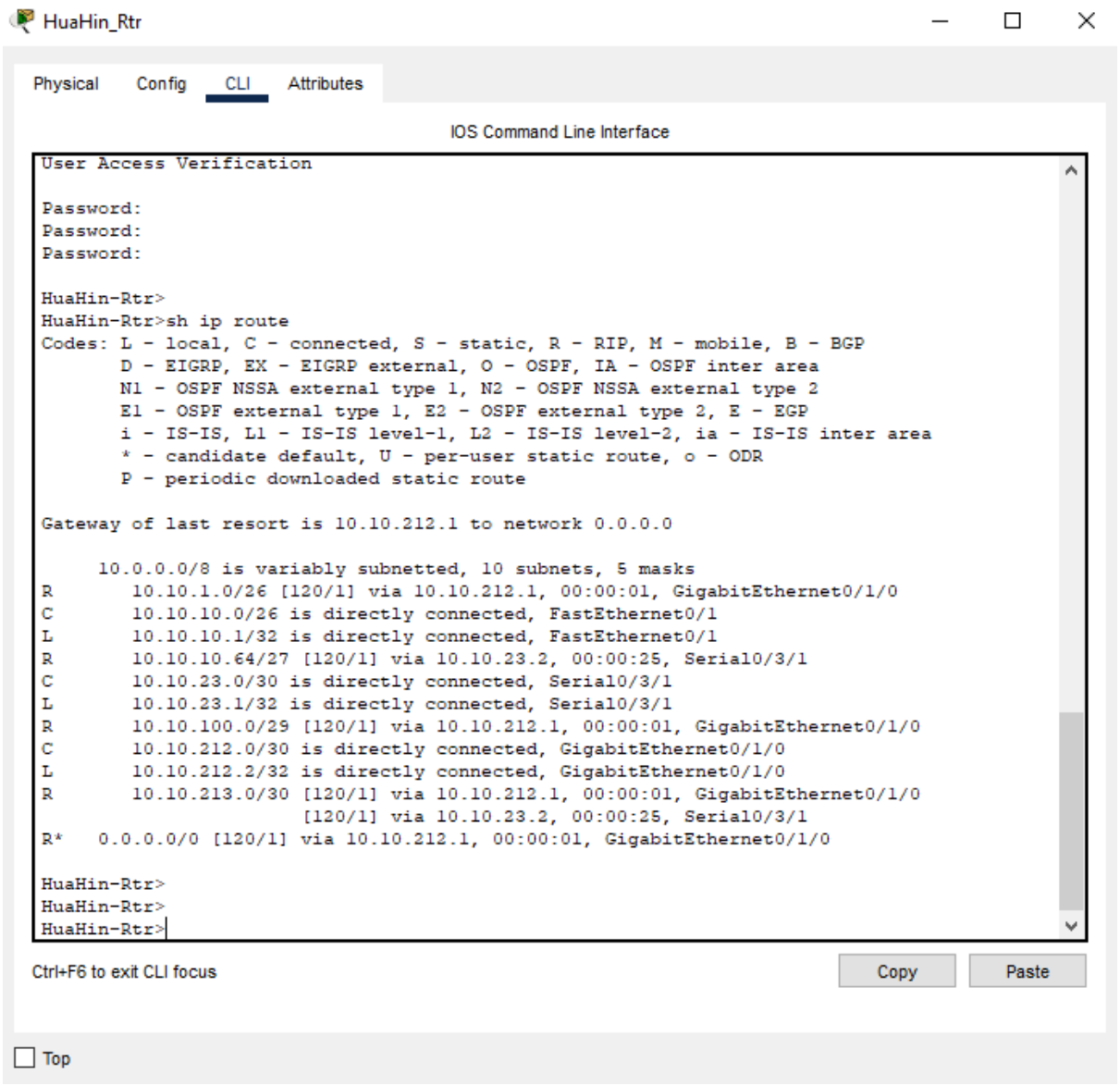



Rayong_Rtr
Physical
Config
CLI
Attributes
IOS Command Line Interface
% Invalid input detected at '^' marker.
Rayong-Rtr(config)#
Rayong-Rtr(config)#exit
Rayong-Rtr#
%SYS-5-CONFIG_I: Configured from console by console
Rayong-Rtr#show ip route
Codes: L - local, C - connected, S - static, R - RIP, M - mobile, B - BGP
D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP
i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS inter area
* - candidate default, U - per-user static route, o - ODR
P - periodic downloaded static route
Gateway of last resort is 10.10.213.1 to network 0.0.0.0
10.0.0.0/8 is variably subnetted, 10 subnets, 5 masks
R 10.10.1.0/26 [120/1] via 10.10.213.1, 00:00:06, GigabitEthernet0/1/0
R 10.10.10.0/26 [120/1] via 10.10.23.1, 00:00:03, Serial0/3/1
C 10.10.10.64/27 is directly connected, FastEthernet0/1
L 10.10.10.65/32 is directly connected, FastEthernet0/1
C 10.10.23.0/30 is directly connected, Serial0/3/1
L 10.10.23.2/32 is directly connected, Serial0/3/1
R 10.10.100.0/29 [120/1] via 10.10.213.1, 00:00:06, GigabitEthernet0/1/0
R 10.10.212.0/30 [120/1] via 10.10.213.1, 00:00:06, GigabitEthernet0/1/0
[120/1] via 10.10.23.1, 00:00:03, Serial0/3/1
C 10.10.213.0/30 is directly connected, GigabitEthernet0/1/0
L 10.10.213.2/32 is directly connected, GigabitEthernet0/1/0
R* 0.0.0.0/0 [120/1] via 10.10.213.1, 00:00:06, GigabitEthernet0/1/0
Rayong-Rtr#
Rayong-Rtr#
Ctrl+F6 to exit CLI focus
Copy
Paste
Top



b. What is the next-hop IP address of the route to 10.10.10.0/26?

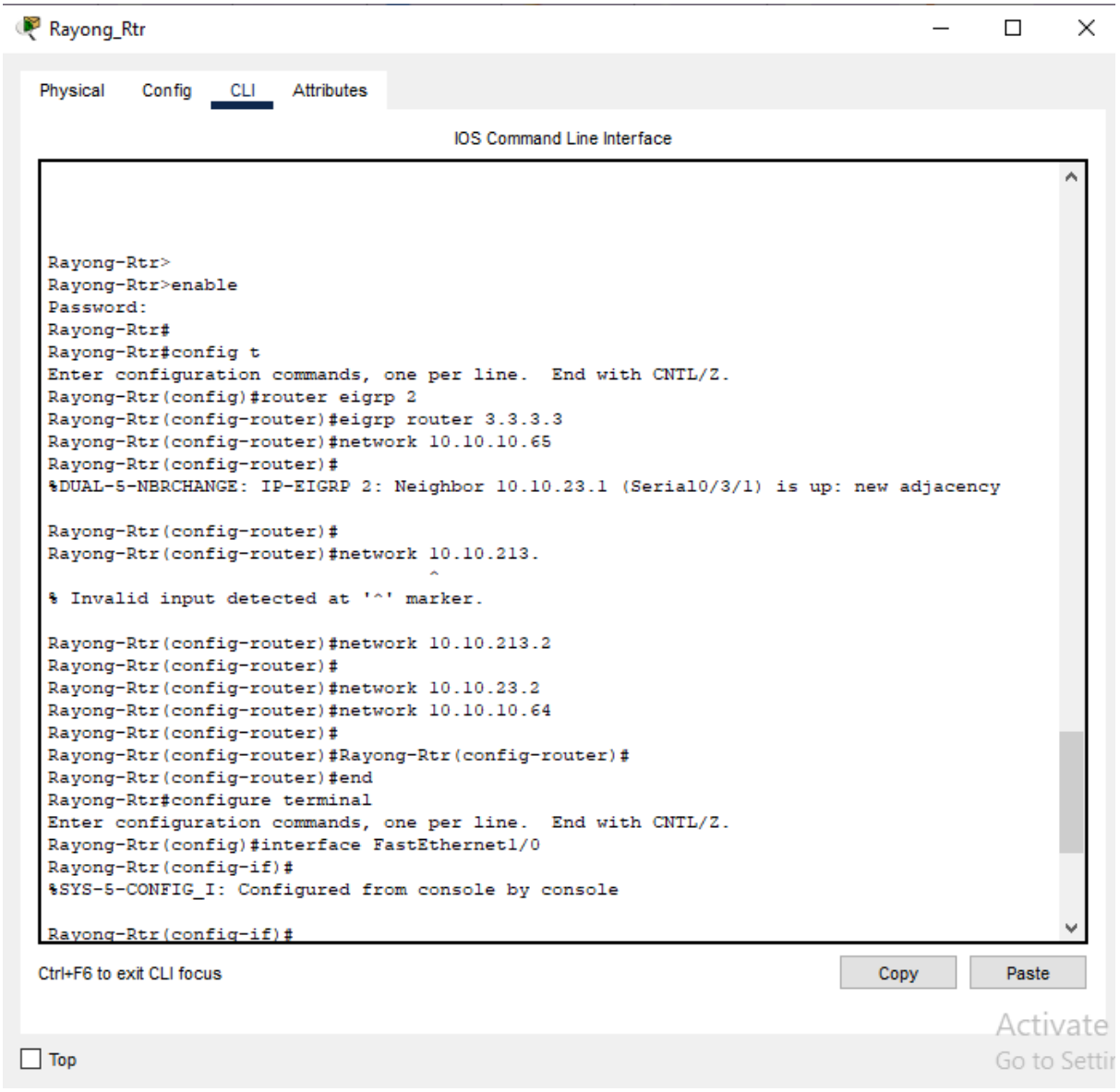
Ans: 10.10.23.1 /30

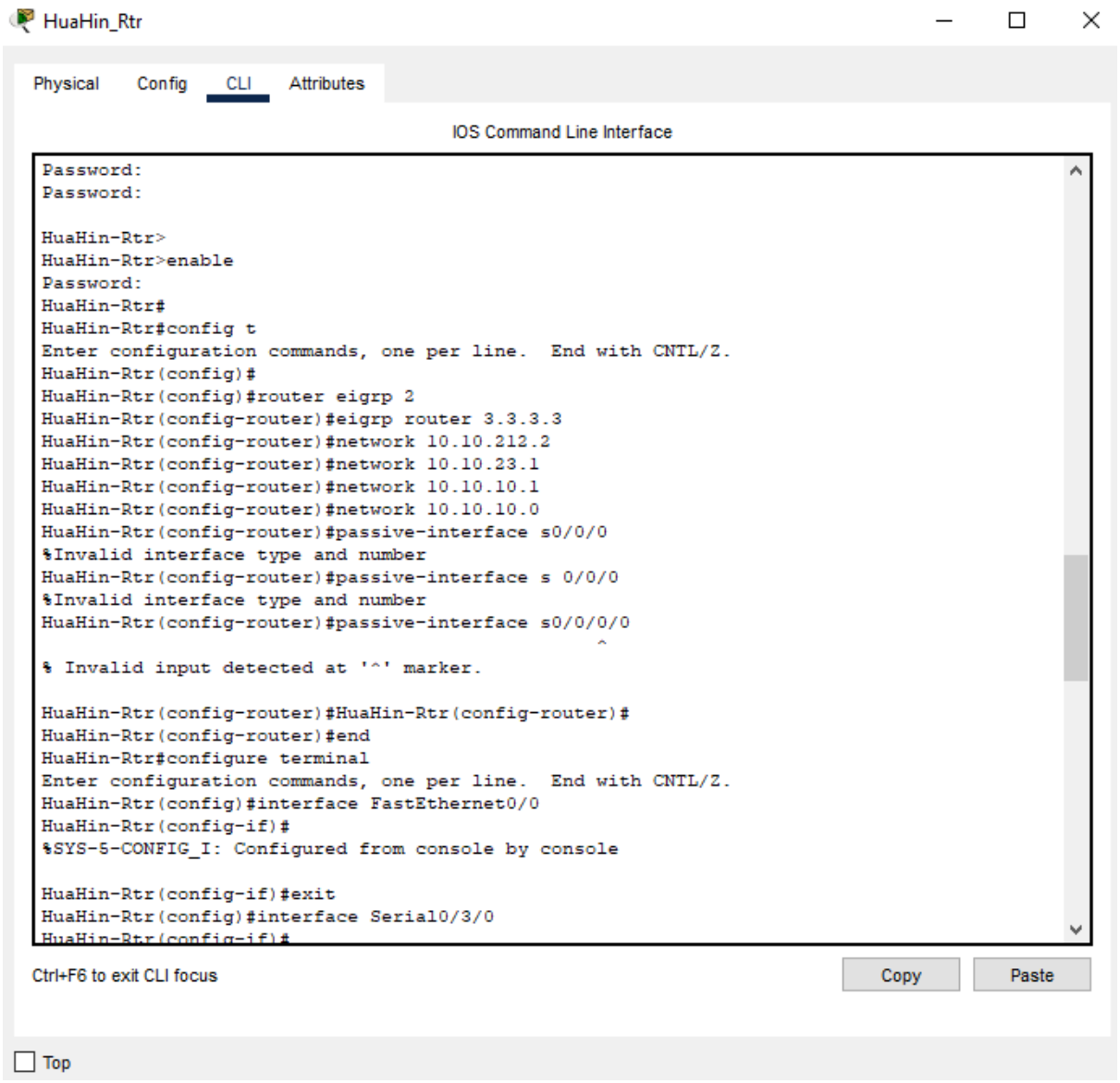
c. What might be a better route for traffic destined for the HuaHin network?

Ans: 10.10.213.1

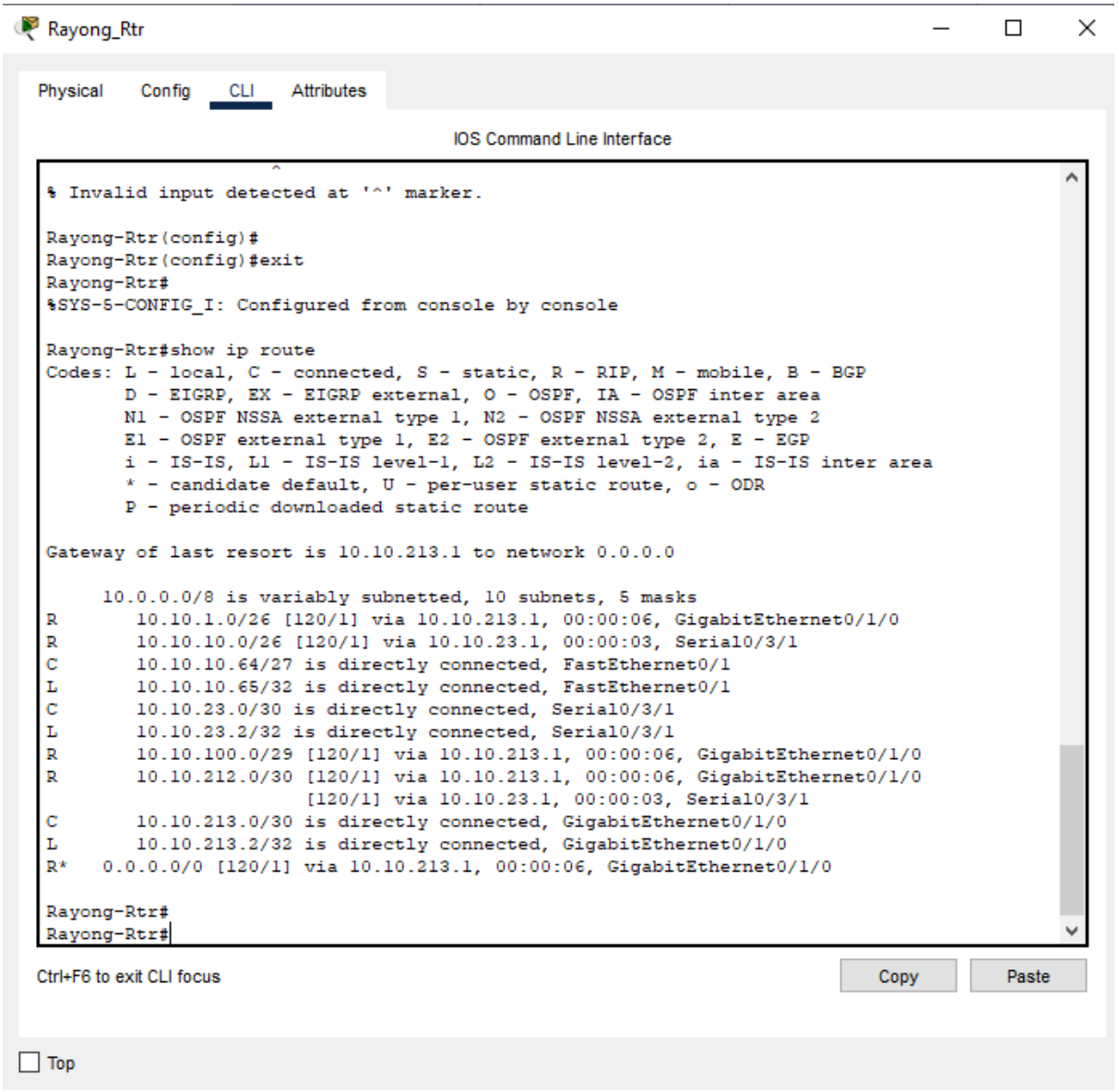
2. The company has decided to implement the EIGRP dynamic routing protocol on all routers while keeping the existing RIP v2 protocol in place until EIGRP has been fully tested and proven stable. The Bangkok router has already been configured for EIGRP. Implement the required commands to bring the HuaHin and Rayong routers into the EIGRP Routing Domain.

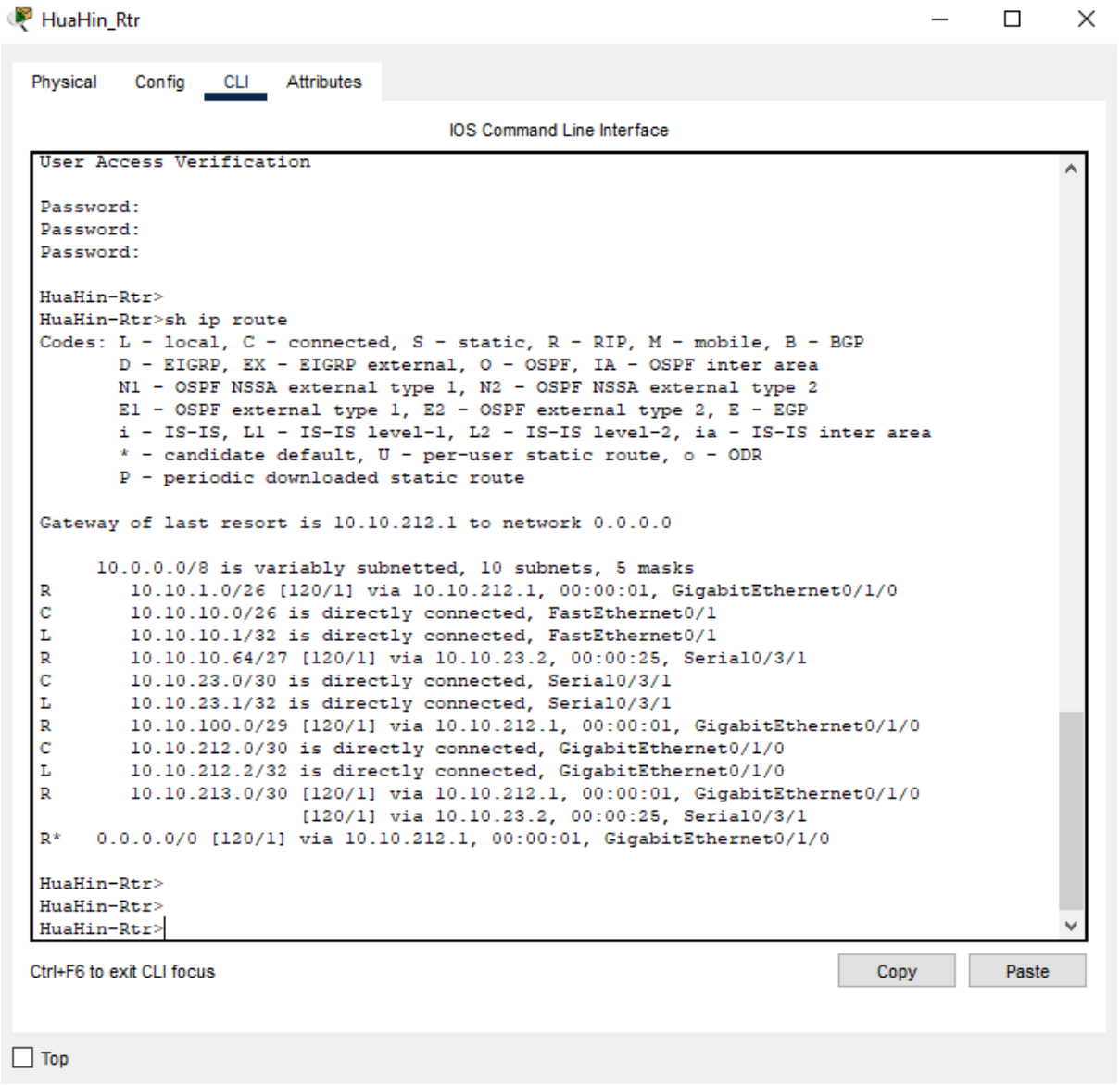
a. Take a screenshot of the parts of the running-config file on each router just showing the EIGRP commands that are configured.


Rayong_Rtr
Physical
Config
CLI
Attributes
IOS Command Line Interface
Rayong-Rtr>
Rayong-Rtr>enable
Password:
Rayong-Rtr#
Rayong-Rtr#config t
Enter configuration commands, one per line. End with CNTL/Z.
Rayong-Rtr(config)#router eigrp 2
Rayong-Rtr(config-router)#eigrp router 3.3.3.3
Rayong-Rtr(config-router)#network 10.10.10.65
Rayong-Rtr(config-router)#
%DUAL-5-NBRCHANGE: IP-EIGRP 2: Neighbor 10.10.23.1 (Serial0/3/1) is up: new adjacency
Rayong-Rtr(config-router)#
Rayong-Rtr(config-router)#network 10.10.213.
^
% Invalid input detected at '^' marker.
Rayong-Rtr(config-router)#network 10.10.213.2
Rayong-Rtr(config-router)#
Rayong-Rtr(config-router)#network 10.10.23.2
Rayong-Rtr(config-router)#network 10.10.10.64
Rayong-Rtr(config-router)#
Rayong-Rtr(config-router)#Rayong-Rtr(config-router)#
Rayong-Rtr(config-router)#end
Rayong-Rtr#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Rayong-Rtr(config)#interface FastEthernet1/0
Rayong-Rtr(config-if)#
%SYS-5-CONFIG_I: Configured from console by console
Rayong-Rtr(config-if)#
Ctrl+F6 to exit CLI focus
Copy
Paste
Top


HuaHin_Rtr
Physical
Config
CLI
Attributes
IOS Command Line Interface
Password:
Password:
HuaHin-Rtr>
HuaHin-Rtr>enable
Password:
HuaHin-Rtr#
HuaHin-Rtr#config t
Enter configuration commands, one per line. End with CNTL/Z.
HuaHin-Rtr(config)#
HuaHin-Rtr(config)#router eigrp 2
HuaHin-Rtr(config-router)#eigrp router 3.3.3.3
HuaHin-Rtr(config-router)#network 10.10.212.2
HuaHin-Rtr(config-router)#network 10.10.23.1
HuaHin-Rtr(config-router)#network 10.10.10.1
HuaHin-Rtr(config-router)#network 10.10.10.0
HuaHin-Rtr(config-router)#passive-interface s0/0/0
%Invalid interface type and number
HuaHin-Rtr(config-router)#passive-interface s 0/0/0
%Invalid interface type and number
HuaHin-Rtr(config-router)#passive-interface s0/0/0/0
^
% Invalid input detected at '^' marker.
HuaHin-Rtr(config-router)#HuaHin-Rtr(config-router)#
HuaHin-Rtr(config-router)#end
HuaHin-Rtr#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
HuaHin-Rtr(config)#interface FastEthernet0/0
HuaHin-Rtr(config-if)#
%SYS-5-CONFIG_I: Configured from console by console
HuaHin-Rtr(config-if)#exit
HuaHin-Rtr(config)#interface Serial0/3/0
HuaHin-Rtr(config-if)#
Ctrl+F6 to exit CLI focus
Copy
Paste
Top

b. Take a screenshot of the routing table at the Rayong router.





c. Which fields of the Rayong routing table information, about the route to the HuaHin subnet (10.10.10.0/26), have changed after implementing EIGRP?

The route to Hua Hin 10.10.10.0/26 has changed from 10.10.23.1 (before configuring eigrp) to 10.10.213.1 (after configuring eigrp).

d. What command would help to confirm that the Rayong router has a Feasible Successor route to 10.10.10.0/26?

show ip eigrp topology