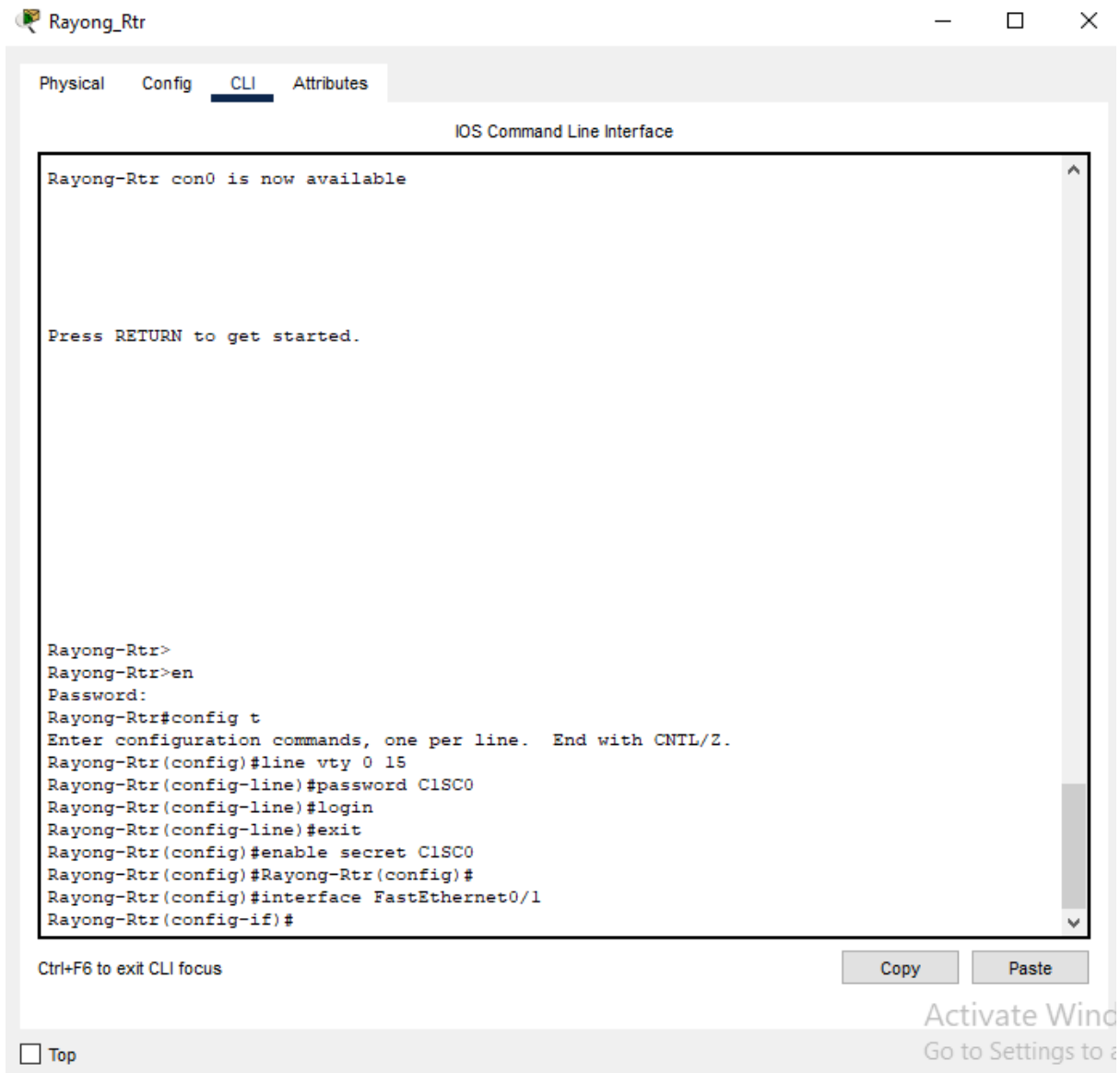


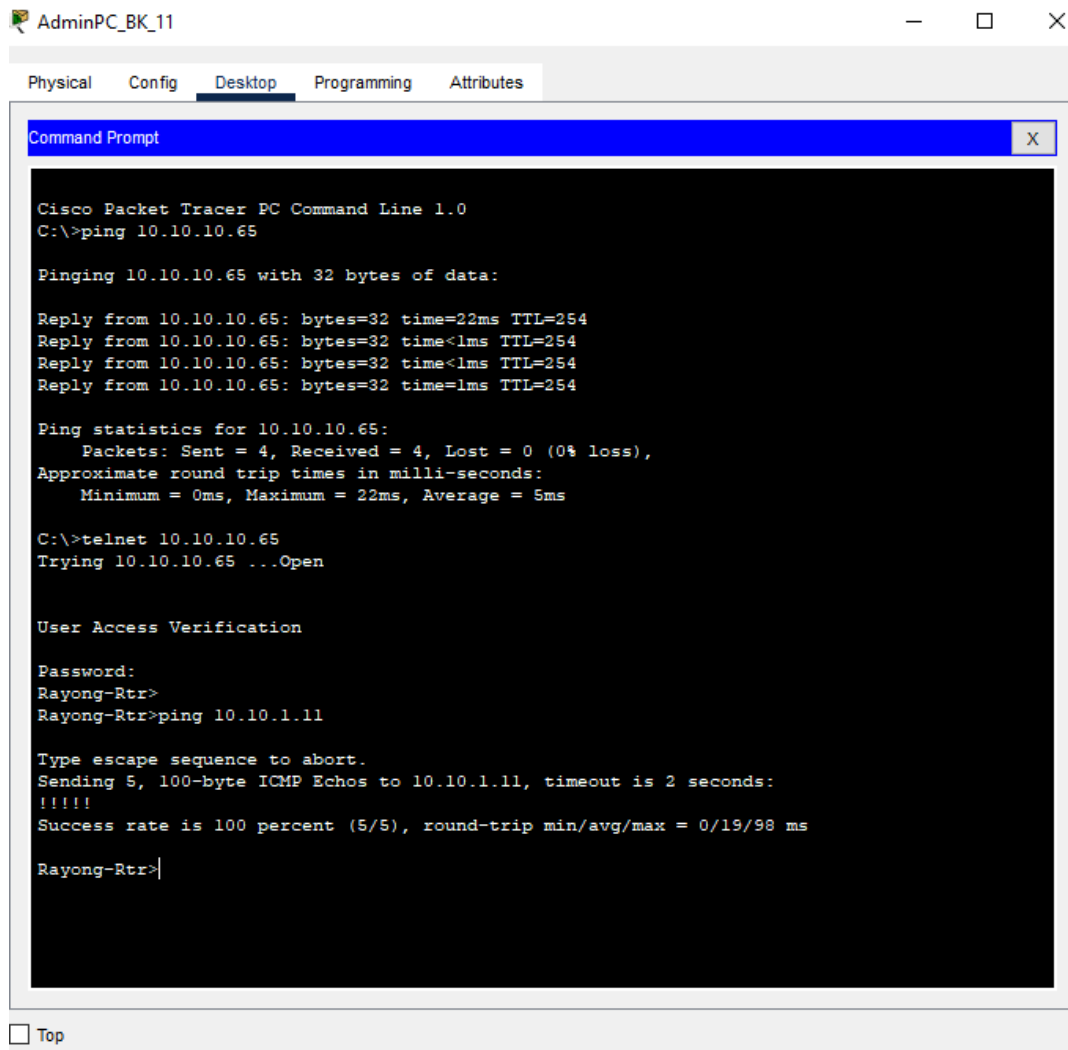
## Lab Tasks


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:





 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

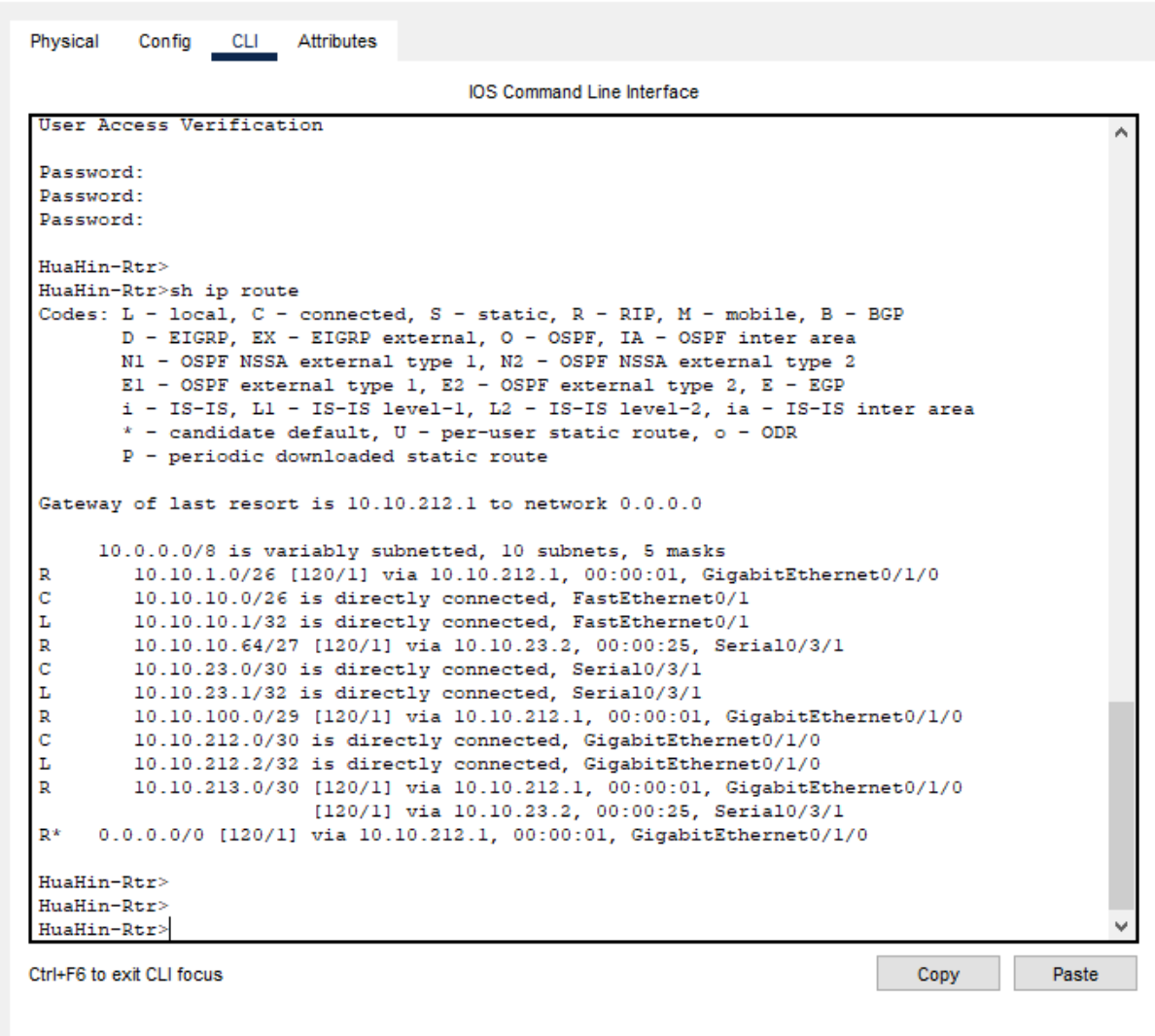
    10.0.0.0/8 is variably subnetted, 10 subnets, 5 masks
R       10.10.1.0/26 [120/1] via 10.10.213.1, 00:00:06, GigabitEthernet0/1/0
R       10.10.10.0/26 [120/1] via 10.10.23.1, 00:00:03, Serial0/3/1
C       10.10.10.64/27 is directly connected, FastEthernet0/1
L       10.10.10.65/32 is directly connected, 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



The screenshot shows the CLI of a router named 'HuaHin\_Rtr'. The user has entered the command 'sh ip route'. The output displays the routing table, including a list of codes (L, C, S, R, M, B, D, EX, O, IA, N1, N2, E1, E2, i, L1, L2, \*, U, o, P) and their meanings. It also shows the gateway of last resort and a list of routes with their next-hop IP addresses and interfaces. The routes are as follows:

Route	Next-Hop IP	Interface
10.0.0.0/8	10.10.212.1	GigabitEthernet0/1/0
10.10.1.0/26	10.10.212.1	GigabitEthernet0/1/0
10.10.10.0/26	10.10.212.1	GigabitEthernet0/1/0
10.10.10.1/32	10.10.212.1	GigabitEthernet0/1/0
10.10.10.64/27	10.10.212.1	GigabitEthernet0/1/0
10.10.23.0/30	10.10.212.1	GigabitEthernet0/1/0
10.10.23.1/32	10.10.212.1	GigabitEthernet0/1/0
10.10.100.0/29	10.10.212.1	GigabitEthernet0/1/0
10.10.212.0/30	10.10.212.1	GigabitEthernet0/1/0
10.10.212.2/32	10.10.212.1	GigabitEthernet0/1/0
10.10.213.0/30	10.10.212.1	GigabitEthernet0/1/0
0.0.0.0/0	10.10.212.1	GigabitEthernet0/1/0

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

Ans: 10.10.212.1 /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

Activate  
Go to Settings

```
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

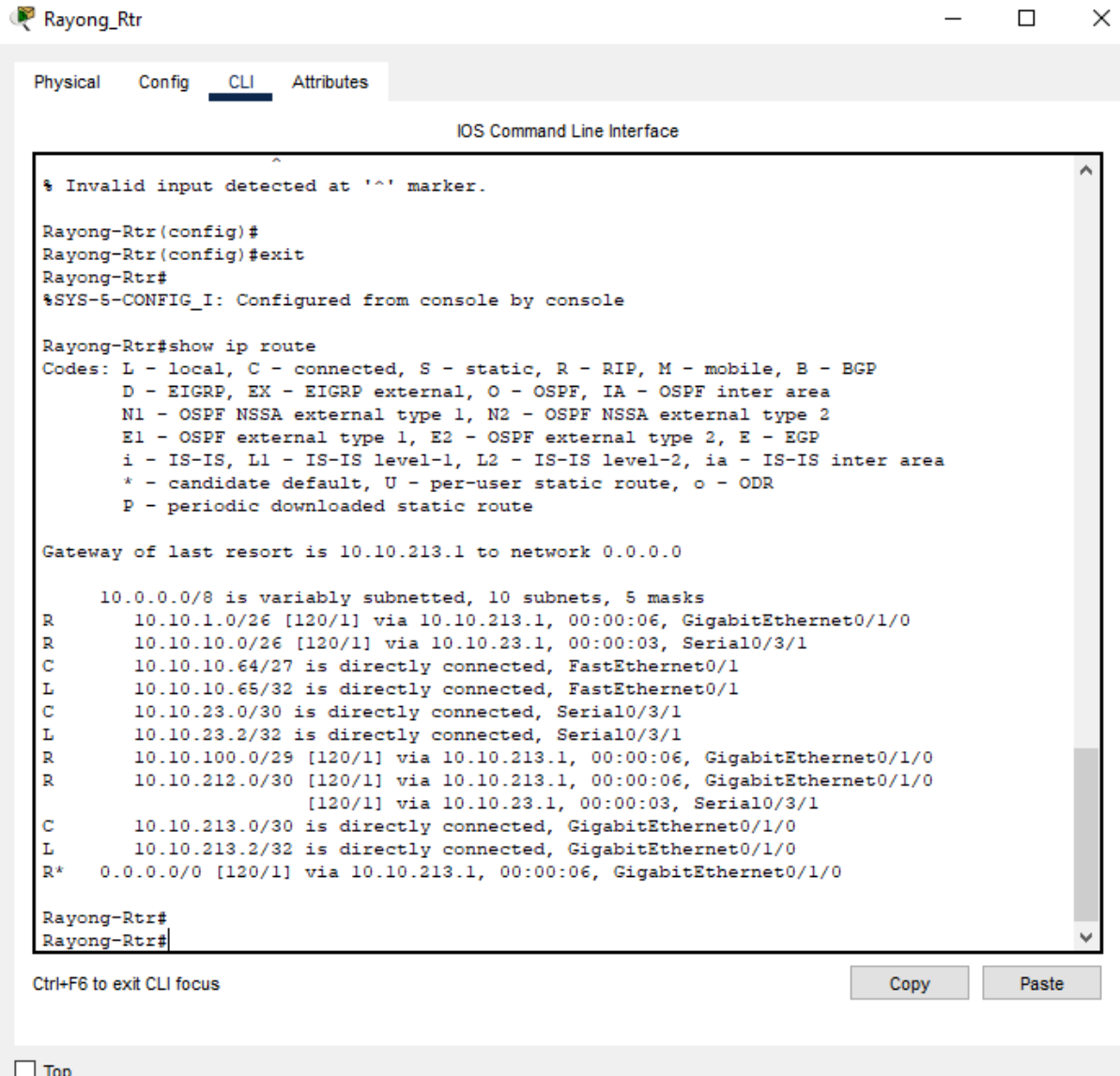
HuaHin-Rtr(config-if)#exit
HuaHin-Rtr(config)#interface Serial0/3/0
HuaHin-Rtr(config-if)#
```

Ctrl+F6 to exit CLI focus

Copy

Paste

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



The screenshot shows the CLI interface of a router named 'Rayong\_Rtr'. The 'CLI' tab is selected. The command 'show ip route' has been entered, displaying the routing table. The output shows various routes, including static routes, OSPF routes, and a default route. The interface also includes a 'Copy' button and a 'Paste' button at the bottom right.

```
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

```
Physical  Config  CLI  Attributes
IOS Command Line Interface

User Access Verification

Password:
Password:
Password:

HuaHin-Rtr>
HuaHin-Rtr>sh 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 10.10.212.1 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 10.10.212.1, 00:00:01, GigabitEthernet0/1/0
C       10.10.10.0/26 is directly connected, FastEthernet0/1
L       10.10.10.1/32 is directly connected, FastEthernet0/1
R       10.10.10.64/27 [120/1] via 10.10.23.2, 00:00:25, Serial0/3/1
C       10.10.23.0/30 is directly connected, Serial0/3/1
L       10.10.23.1/32 is directly connected, Serial0/3/1
R       10.10.100.0/29 [120/1] via 10.10.212.1, 00:00:01, GigabitEthernet0/1/0
C       10.10.212.0/30 is directly connected, GigabitEthernet0/1/0
L       10.10.212.2/32 is directly connected, GigabitEthernet0/1/0
R       10.10.213.0/30 [120/1] via 10.10.212.1, 00:00:01, GigabitEthernet0/1/0
        [120/1] via 10.10.23.2, 00:00:25, Serial0/3/1
R*    0.0.0.0/0 [120/1] via 10.10.212.1, 00:00:01, GigabitEthernet0/1/0

HuaHin-Rtr>
HuaHin-Rtr>
HuaHin-Rtr>
```

Ctrl+F6 to exit CLI focus

Copy Paste

☐ Top

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