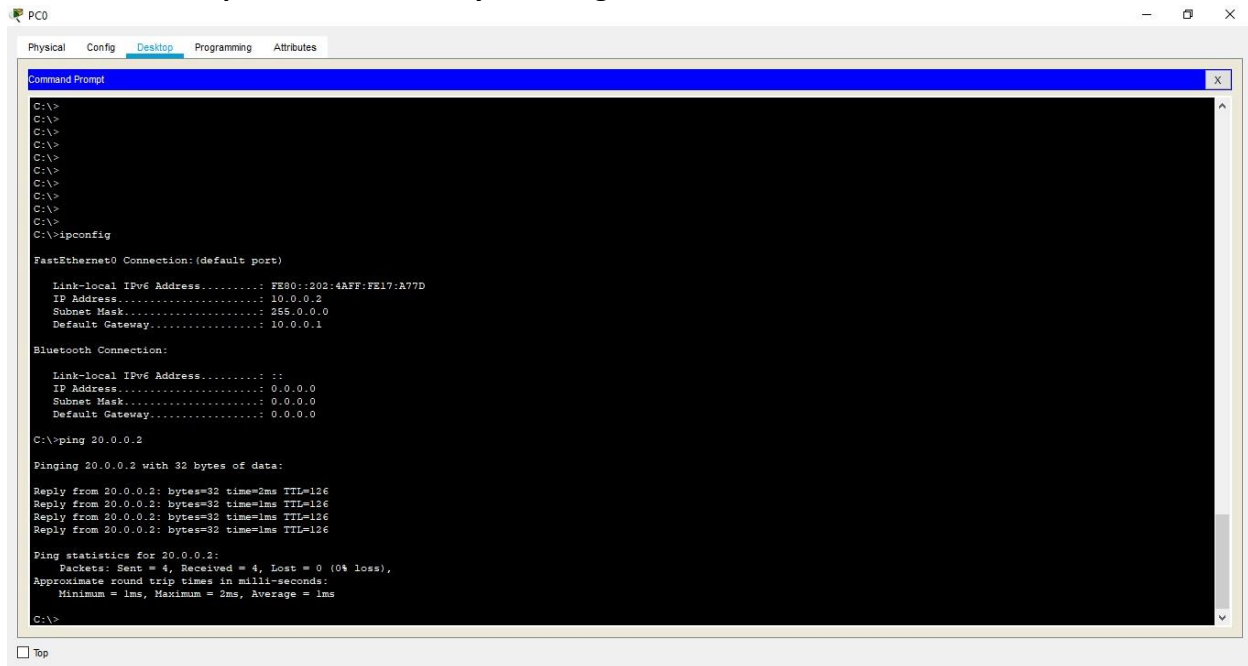


1. Include a screenshot of PC0 command prompt executing 'ipconfig' command and 'ping' command, with packets successfully reaching PC1.



The screenshot shows the Command Prompt window on PC0. The window title is "Command Prompt". The output of the 'ipconfig' command shows the FastEthernet0 interface with IP address 10.0.0.2, subnet mask 255.0.0.0, and default gateway 10.0.0.1. The output of the 'ping 20.0.0.2' command shows four successful replies from 20.0.0.2 with 32 bytes of data, each taking 1ms. The ping statistics show 4 packets sent, 4 received, and 0 lost (0% loss).

```
C:\>
C:\>
C:\>
C:\>
C:\>
C:\>
C:\>
C:\>
C:\>ipconfig

FastEthernet0 Connection: (default port)

    Link-local IPv6 Address . . . . . FE80::202:4AFF:FE17:A77D
    IP Address. . . . . 10.0.0.2
    Subnet Mask . . . . . 255.0.0.0
    Default Gateway . . . . . 10.0.0.1

Bluetooth Connection:

    Link-local IPv6 Address . . . . . ::
    IP Address. . . . . 0.0.0.0
    Subnet Mask . . . . . 0.0.0.0
    Default Gateway . . . . . 0.0.0.0

C:\>ping 20.0.0.2

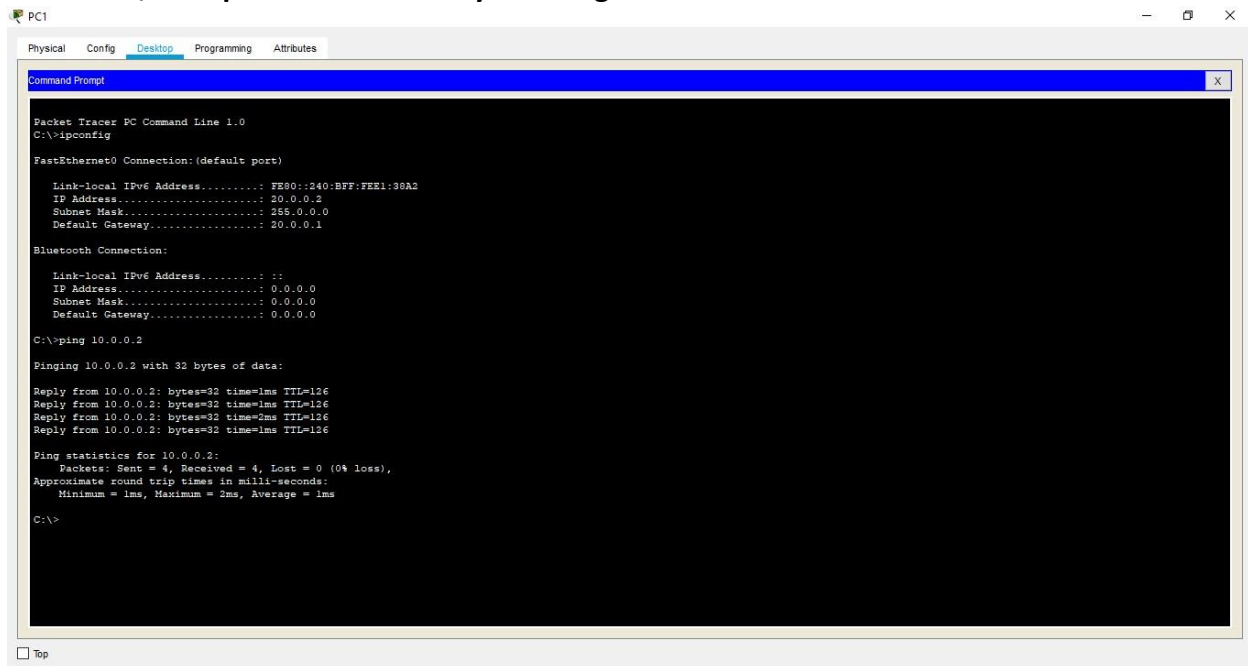
Pinging 20.0.0.2 with 32 bytes of data:

Reply from 20.0.0.2: bytes=32 time=2ms TTL=126
Reply from 20.0.0.2: bytes=32 time=1ms TTL=126
Reply from 20.0.0.2: bytes=32 time=1ms TTL=126
Reply from 20.0.0.2: bytes=32 time=1ms TTL=126

Ping statistics for 20.0.0.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 1ms, Maximum = 2ms, Average = 1ms

C:\>
```

2. Include a screenshot of PC1 command prompt executing 'ipconfig' command and 'ping' command, with packets successfully reaching PC0.



The screenshot shows the Command Prompt window on PC1. The window title is "Command Prompt". The output of the 'ipconfig' command shows the FastEthernet0 interface with IP address 20.0.0.2, subnet mask 255.0.0.0, and default gateway 20.0.0.1. The output of the 'ping 10.0.0.2' command shows four successful replies from 10.0.0.2 with 32 bytes of data, each taking 1ms. The ping statistics show 4 packets sent, 4 received, and 0 lost (0% loss).

```
Packet Tracer PC Command Line 1.0
C:\>ipconfig

FastEthernet0 Connection: (default port)

    Link-local IPv6 Address . . . . . FE80::240:BFF:FE1:30A2
    IP Address. . . . . 20.0.0.2
    Subnet Mask . . . . . 255.0.0.0
    Default Gateway . . . . . 20.0.0.1

Bluetooth Connection:

    Link-local IPv6 Address . . . . . ::
    IP Address. . . . . 0.0.0.0
    Subnet Mask . . . . . 0.0.0.0
    Default Gateway . . . . . 0.0.0.0

C:\>ping 10.0.0.2

Pinging 10.0.0.2 with 32 bytes of data:

Reply from 10.0.0.2: bytes=32 time=1ms TTL=126
Reply from 10.0.0.2: bytes=32 time=1ms TTL=126
Reply from 10.0.0.2: bytes=32 time=2ms TTL=126
Reply from 10.0.0.2: bytes=32 time=1ms TTL=126

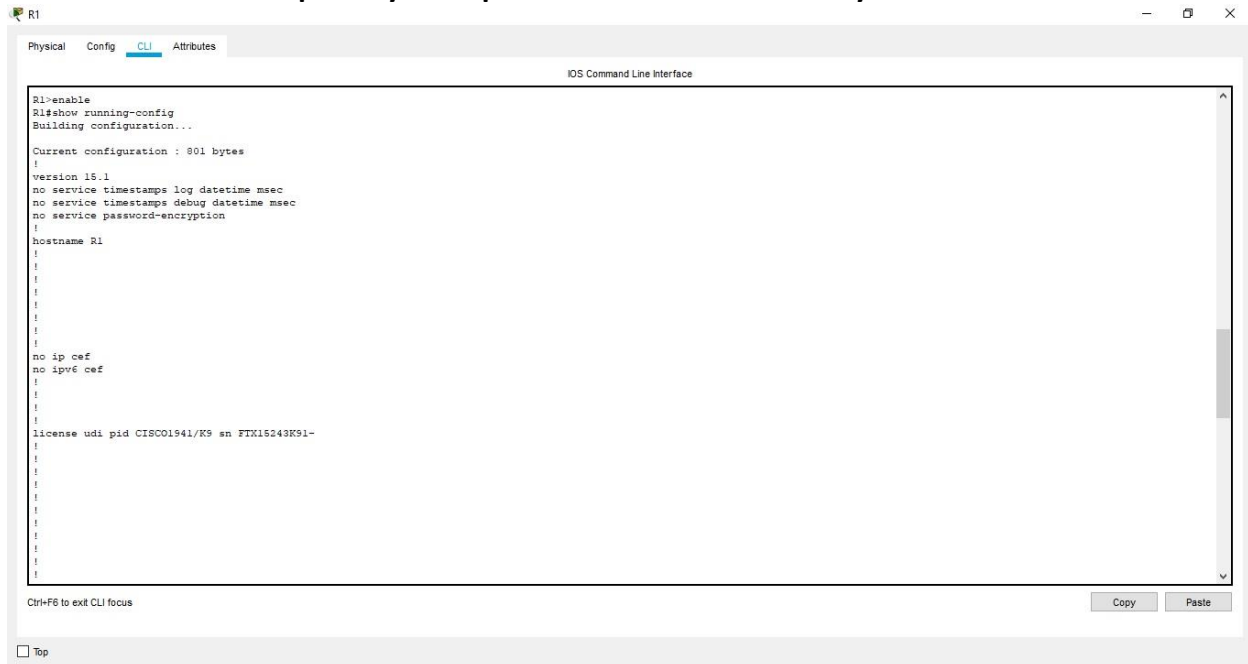
Ping statistics for 10.0.0.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 1ms, Maximum = 2ms, Average = 1ms

C:\>
```

3. In the privilege mode of R1 (i.e. R1# ) execute the command below:

**R1# show running-config**

**Include the whole output to your report. What information can you find there?**

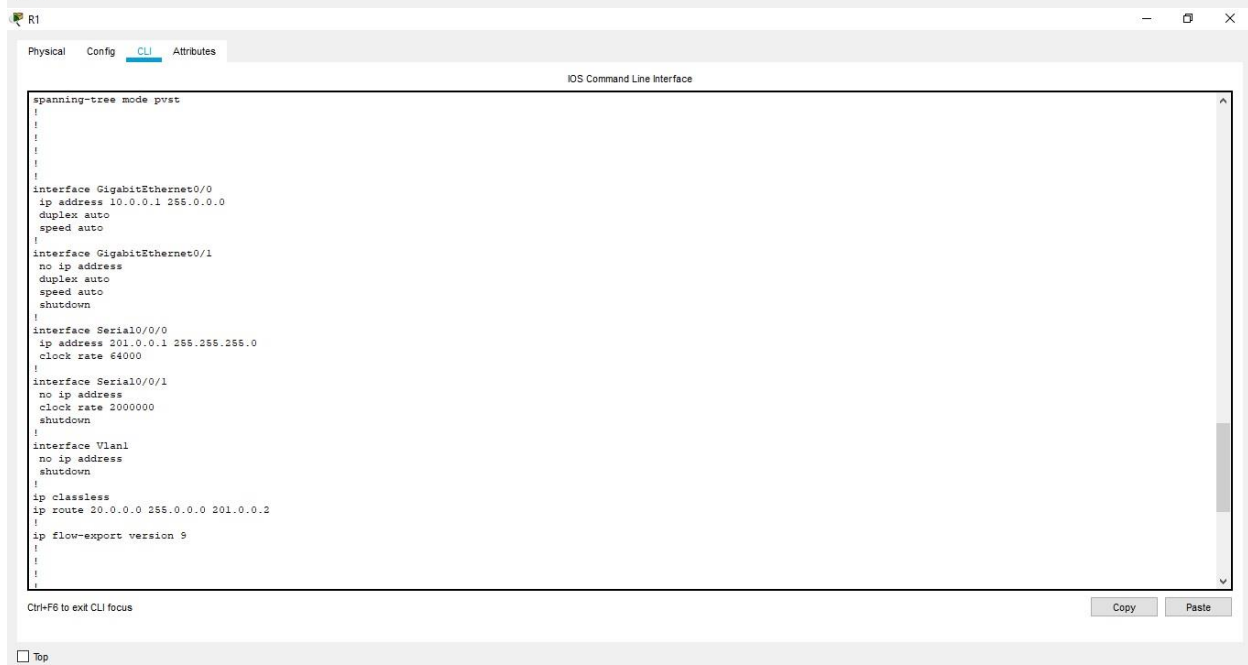


The screenshot shows the R1 CLI interface with the 'show running-config' command executed. The output displays the current configuration, including version 15.1, hostname R1, and various service settings. The configuration is as follows:

```
R1>enable
R1#show running-config
Building configuration...

Current configuration : 801 bytes
!
version 15.1
no service timestamps log datetime msec
no service timestamps debug datetime msec
no service password-encryption
!
hostname R1
!
!
!
!
!
!
no ip cef
no ipv6 cef
!
!
!
!
license udi pid CISC01941/K9 sn FTX15243K91-
!
!
!
!
!
!
!
```

At the bottom of the window, there is a status bar with the text "Ctrl+F6 to exit CLI focus" and two buttons: "Copy" and "Paste".

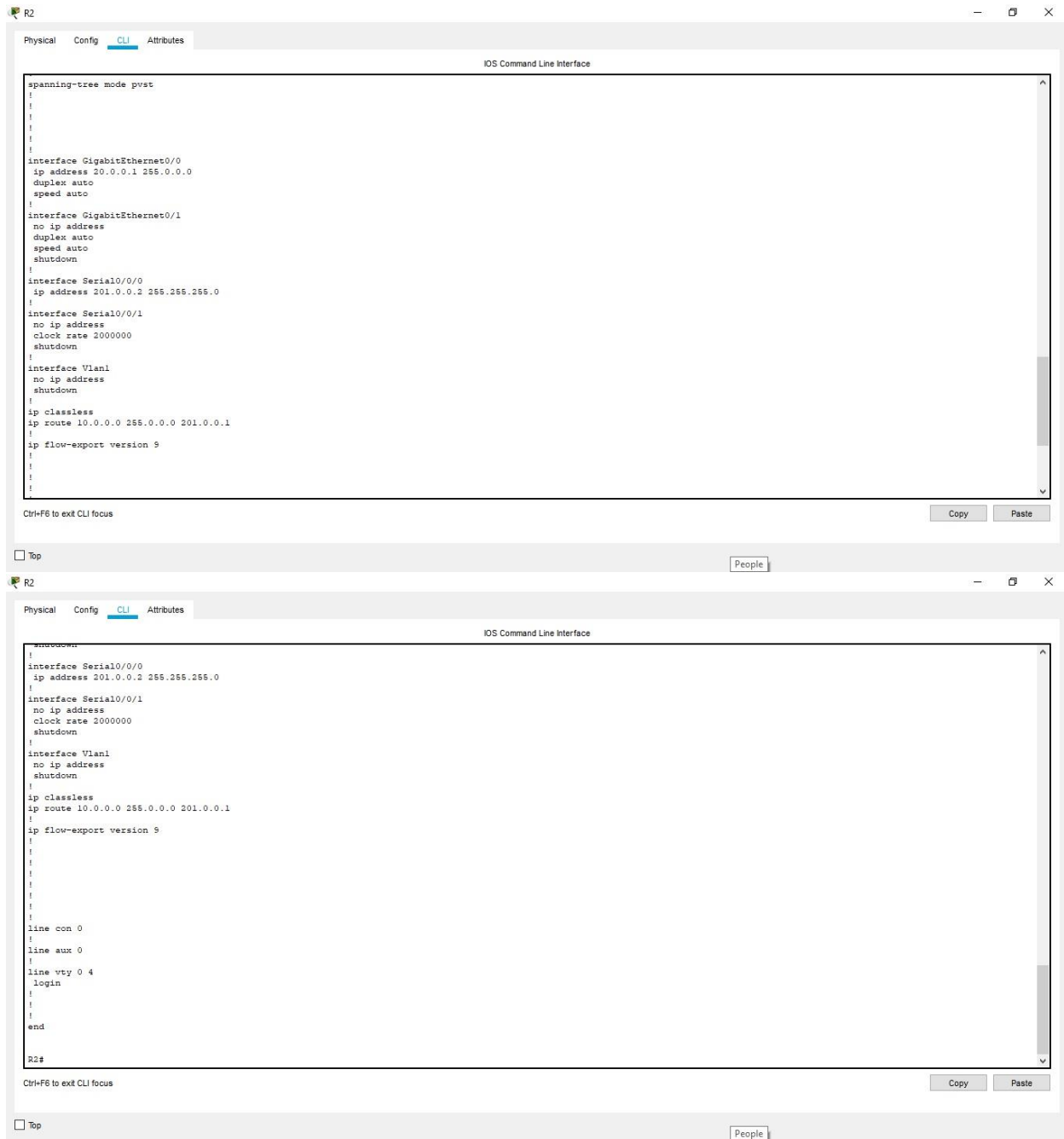


The screenshot shows the R1 CLI interface with the 'show running-config' command executed. The output displays the current configuration, including spanning-tree mode, interfaces, and routing. The configuration is as follows:

```
spanning-tree mode pvrst
!
!
!
!
!
!
interface GigabitEthernet0/0
ip address 10.0.0.1 255.0.0.0
duplex auto
speed auto
!
interface GigabitEthernet0/1
no ip address
duplex auto
speed auto
shutdown
!
interface Serial0/0/0
ip address 201.0.0.1 255.255.255.0
clock rate 64000
!
interface Serial0/0/1
no ip address
clock rate 2000000
shutdown
!
interface Vlan1
no ip address
shutdown
!
ip classless
ip route 20.0.0.0 255.0.0.0 201.0.0.2
!
ip flow-export version 9
!
!
!
```

At the bottom of the window, there is a status bar with the text "Ctrl+F6 to exit CLI focus" and two buttons: "Copy" and "Paste".





The hostname of the router is R2.

Port GigabitEthernet0/0 is assigned IP address 20.0.0.1 and subnet mask is 255.0.0.0.

Port Serial0/0/0 is assigned IP address 201.0.0.2 and subnet mask 255.255.255.0.

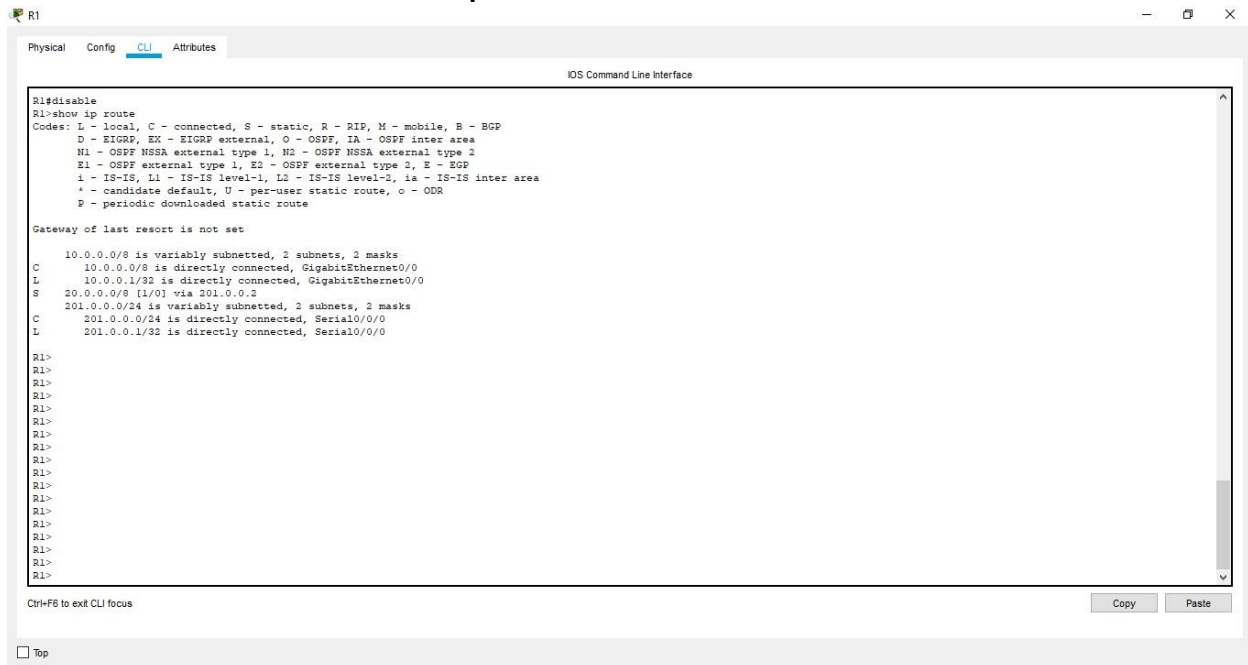
Port classless IP route is configured to 10.0.0.0 255.0.0.0 201.0.0.1.

**5. In the user mode of R1 and R2 (i.e. R1> and R2> ) execute the command below:**

**R1> show ip route**

**R2> show ip route**

What information can you find there? Describe each output separately and include how you obtained information from the output. Include *two* screenshots.



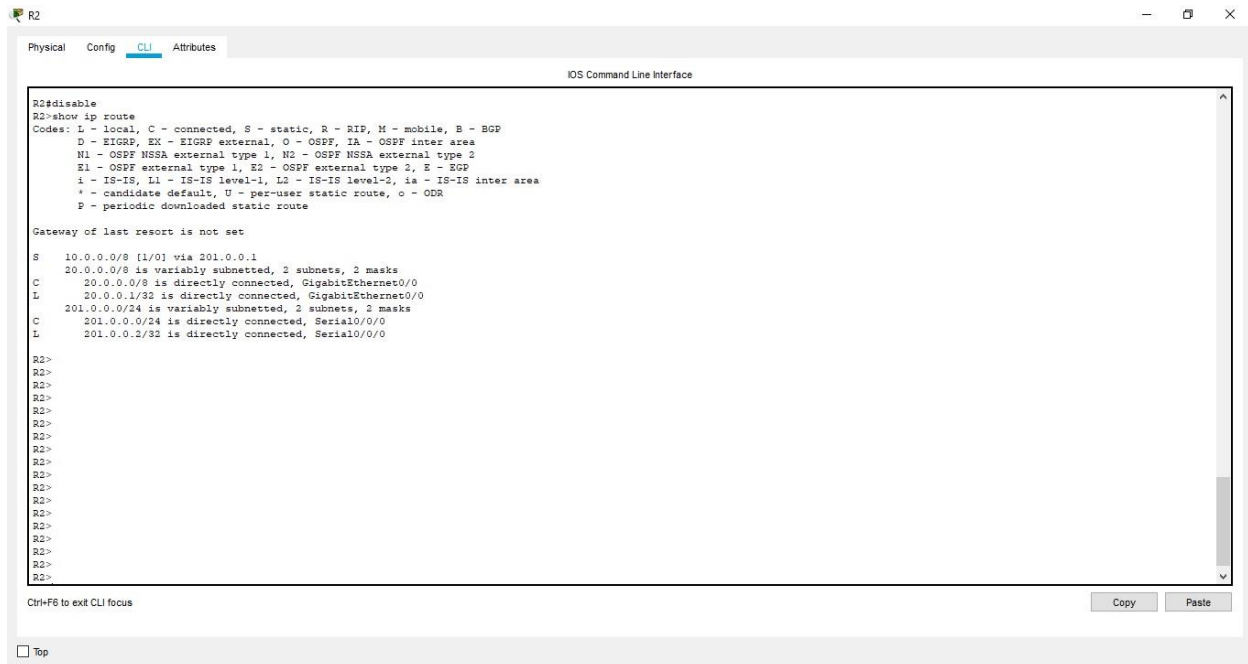
```
R1#disable
R1>show ip route
Codes: L - local, C - connected, S - static, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 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 not set

10.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
C       10.0.0.0/8 is directly connected, GigabitEthernet0/0
L       10.0.0.1/32 is directly connected, GigabitEthernet0/0
S       20.0.0.0/8 (1/0) via 201.0.0.2
201.0.0.0/24 is variably subnetted, 2 subnets, 2 masks
C       201.0.0.0/24 is directly connected, Serial0/0/0
L       201.0.0.1/32 is directly connected, Serial0/0/0

R1>
R1>
R1>
R1>
R1>
R1>
R1>
R1>
R1>
R1>
R1>
R1>
R1>
R1>
R1>
```

You can access the network 10.0.0.0/8 through port GigabitEthernet0/0 because it is denoted by a C.  
IP 10.0.0.1/32 is assigned to port GigabitEthernet0/0 because it is denoted by an L.  
Static route configuration has been enabled, giving access to the network 20.0.0.0/8 through IP address 201.0.0.2 because it is denoted by an S.  
You can access the network 201.0.0.0/24 through port Serial0/0 because it is denoted by a C.  
IP 201.0.0.1/32 is assigned to port Serial0/0 because it is denoted by an L.



Static route configuration has been enabled, giving access to the network 10.0.0.0/8 through IP address 201.0.0.1 because it is denoted by an S.

You can access the network 20.0.0.0/8 through port GigabitEthernet0/0 because it is denoted by a C.

IP 20.0.0.1/32 is assigned to port GigabitEthernet0/0 because it is denoted by an L.

You can access the network 201.0.0.0/24 through port Serial0/0 because it is denoted by a C.

IP 201.0.0.2/32 is assigned to port Serial0/0 because it is denoted by an L.