1.

After configuring RIPv2 in Lab04_RIPv2 file:

a. Execute the 'show running-config' command in each router and submit the most important parts (i.e. interfaces network configuration) to demonstrate the correct configuration of your topology.

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

Current configuration : 820 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 CISCO1941/K9 sn FTX1524XR3X
!
!
!
!
!
!
!
!
!
spanning-tree mode pvst
!
!
!
!
!
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
```

Ctrl+F6 to exit CLI focus   Copy   Paste
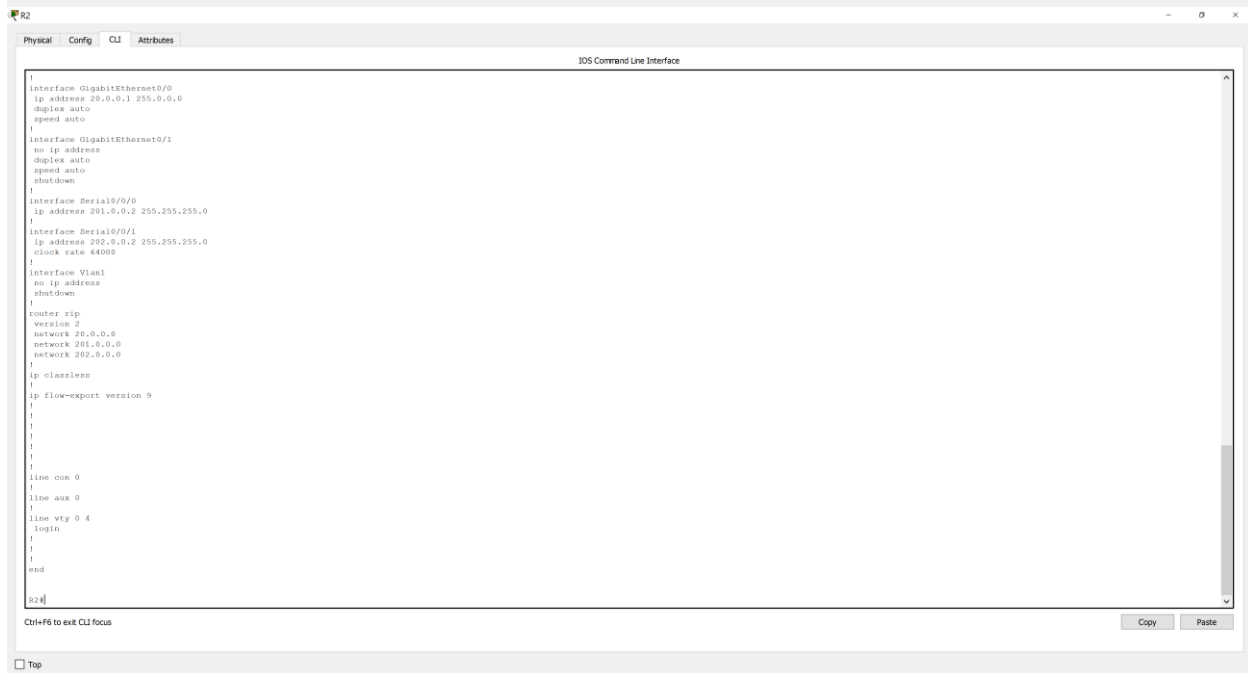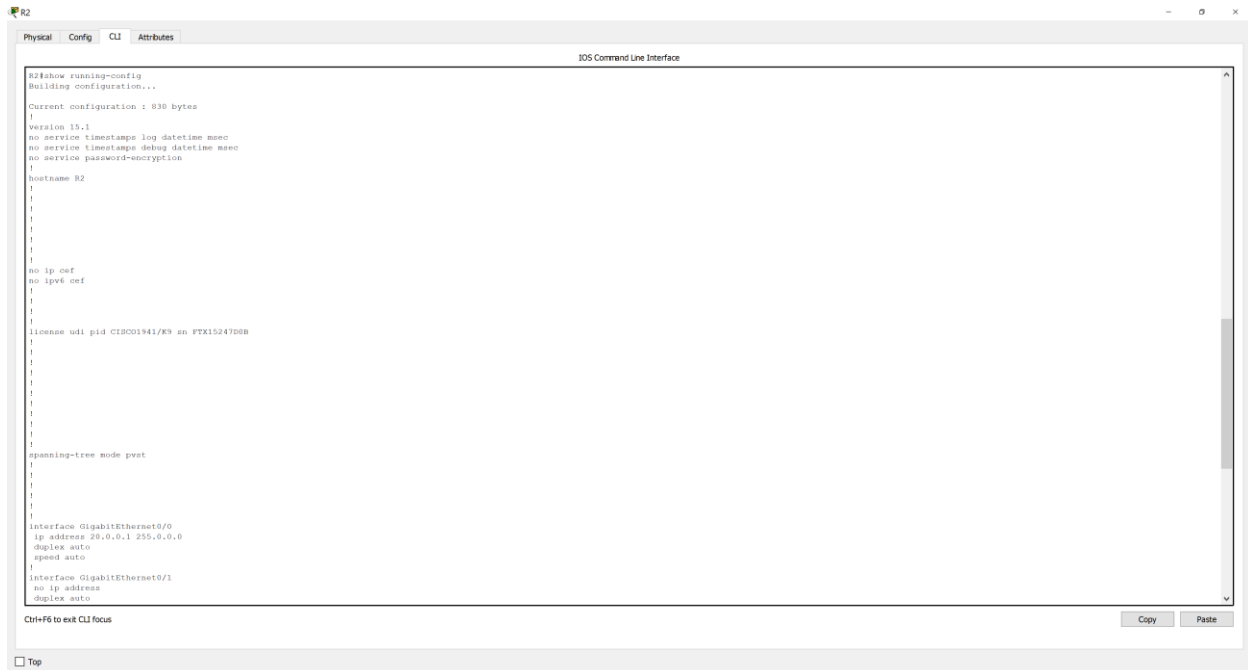
□ Top

```
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
!
router rip
 version 2
 network 10.0.0.0
 network 201.0.0.0
!
ip classless
!
ip flow-export version 9
!
!
!
!
!
!
!
line con 0
!
line aux 0
!
line vty 0 4
 login
!
!
!
end

R1#
```

Ctrl+F6 to exit CLI focus   Copy   Paste

□ Top

Physical | Config | CLI | Attributes

IOS Command Line Interface

```
R2#show running-config
Building configuration...

Current configuration : 830 bytes
!
version 15.1
no service timestamps log datetime msec
no service timestamps debug datetime msec
no service password-encryption
!
hostname R2
!
!
!
!
!
!
!
!
!
!
no ip cef
no ipv6 cef
!
!
!
license udi pid CISCO1941/K9 sn FTX15247D0B
!
!
!
!
!
!
!
!
!
!
spanning-tree mode pvst
!
!
!
!
interface GigabitEthernet0/0
 ip address 20.0.0.1 255.0.0.0
 duplex auto
 speed auto
!
interface GigabitEthernet0/1
 no ip address
 duplex auto
```

Ctrl+F6 to exit CLI focus   Copy   Paste

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Physical | Config | CLI | Attributes

IOS Command Line Interface

```
!
interface GigabitEthernet0/0
 ip address 20.0.0.1 255.0.0.0
 duplex auto
 speed auto
!
interface GigabitEthernet0/1
 no ip address
 duplex auto
 speed auto
 shutdown
!
interface Serial0/0/0
 ip address 201.0.0.2 255.255.255.0
!
interface Serial0/0/1
 ip address 202.0.0.2 255.255.255.0
 clock rate 64000
!
interface Vlan1
 no ip address
 shutdown
!
router rip
 version 2
 network 20.0.0.0
 network 201.0.0.0
 network 202.0.0.0
!
ip classless
!
ip flow-export version 9
!
!
!
!
!
!
!
line con 0
!
line aux 0
!
line vty 0 4
 login
!
!
!
end

R2#
```
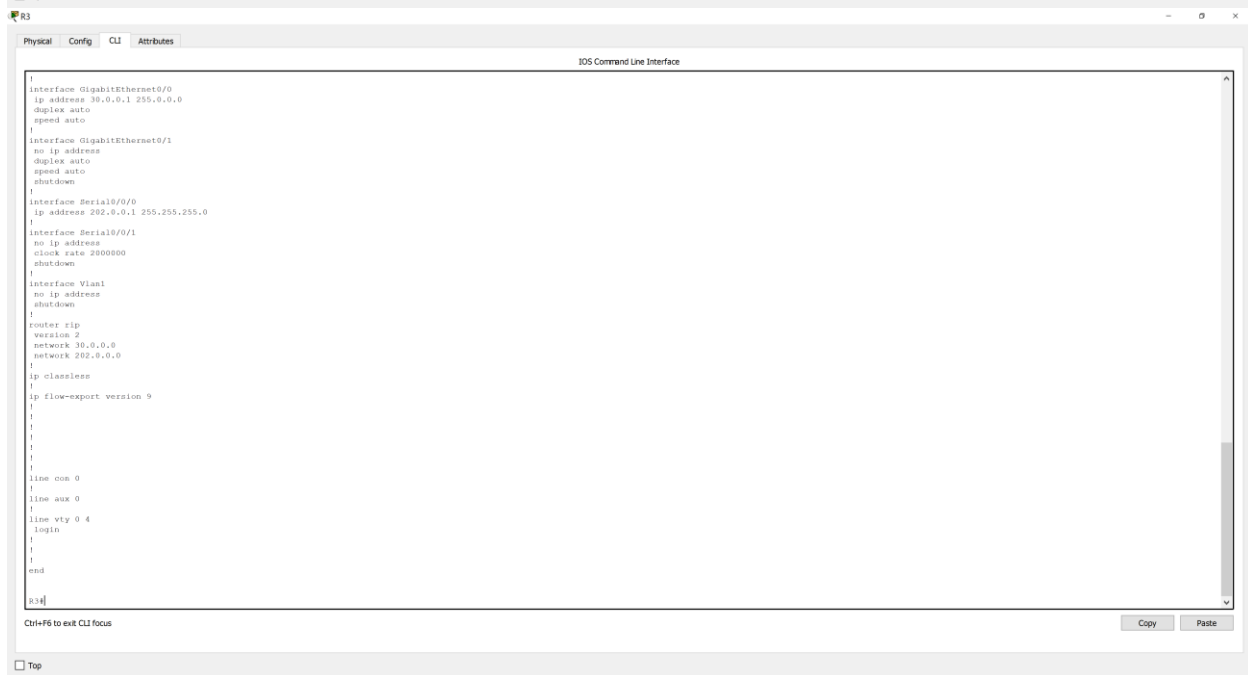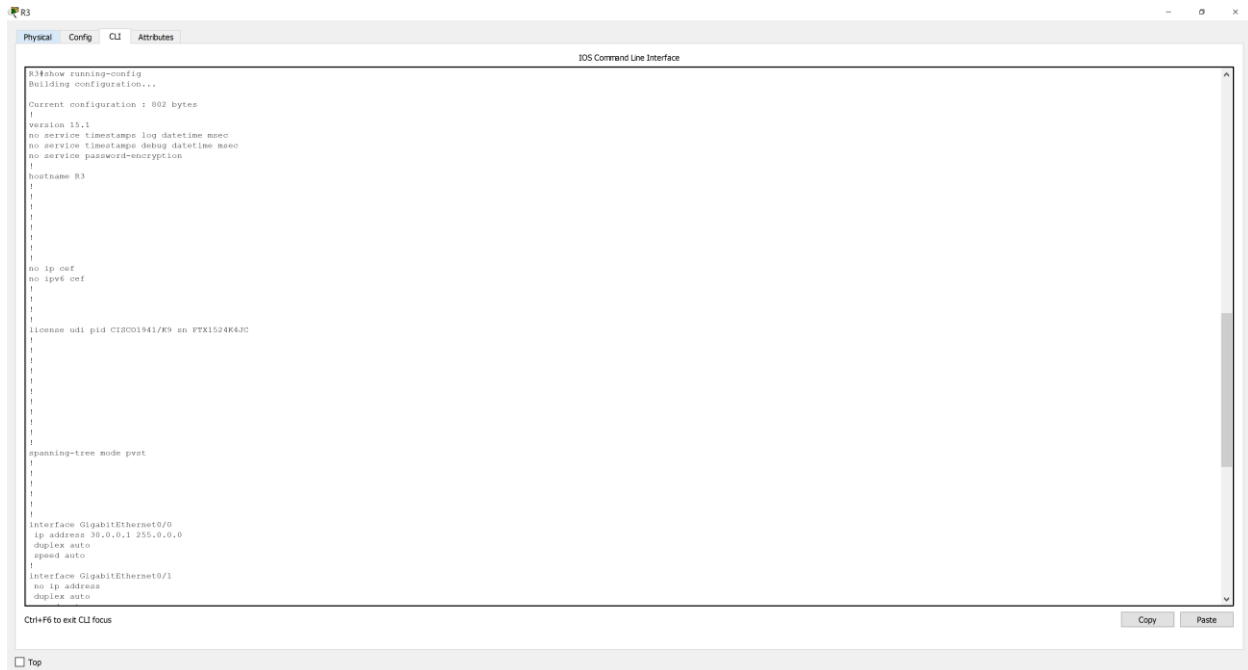
Ctrl+F6 to exit CLI focus   Copy   Paste

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Physical   Config   **CLI**   Attributes

IOS Command Line Interface

```
R3#show running-config
Building configuration...

Current configuration : 802 bytes
!
version 15.1
no service timestamps log datetime msec
no service timestamps debug datetime msec
no service password-encryption
!
hostname R3
!
!
!
!
!
!
!
!
no ip cef
no ipv6 cef
!
!
!
license udi pid CISCO1941/K9 sn FTX1524K4JC
!
!
!
!
!
!
!
!
!
!
!
!
spanning-tree mode pvst
!
!
!
!
interface GigabitEthernet0/0
 ip address 30.0.0.1 255.0.0.0
 duplex auto
 speed auto
!
interface GigabitEthernet0/1
 no ip address
 duplex auto
```

Ctrl+F6 to exit CLI focus   Copy   Paste

☐ Top

```
!
interface GigabitEthernet0/0
 ip address 30.0.0.1 255.0.0.0
 duplex auto
 speed auto
!
interface GigabitEthernet0/1
 no ip address
 duplex auto
 speed auto
 shutdown
!
interface Serial0/0/0
 ip address 202.0.0.1 255.255.255.0
!
interface Serial0/0/1
 no ip address
 clock rate 2000000
 shutdown
!
interface Vlan1
 no ip address
 shutdown
!
router rip
 version 2
 network 30.0.0.0
 network 202.0.0.0
!
ip classless
!
ip flow-export version 9
!
!
!
!
!
!
!
line con 0
!
line aux 0
!
line vty 0 4
 login
!
!
!
end

R3#
```

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b. Execute the 'show ip protocol' command in router 2 (R2) and submit the most important parts (i.e. routing protocol configuration) to demonstrate the correct configuration of your routing protocol.


```
R2#show ip protocol
Routing Protocol is "rip"
Sending updates every 30 seconds, next due in 12 seconds
Invalid after 180 seconds, hold down 180, flushed after 240
Outgoing update filter list for all interfaces is not set
Incoming update filter list for all interfaces is not set
Redistributing: rip
Default version control: send version 2, receive 2
  Interface             Send  Recv  Triggered RIP  Key-chain
  GigabitEthernet0/0     2     2
  Serial0/0/1            2     2
  Serial0/0/0            2     2
Automatic network summarization is in effect
Maximum path: 4
Routing for Networks:
       20.0.0.0
       201.0.0.0
       202.0.0.0
Passive Interface(s):
Routing Information Sources:
       Gateway         Distance      Last Update
       201.0.0.1        120          00:00:12
       202.0.0.1        120          00:00:17
Distance: (default is 120)
R2#
R2#
R2#
R2#
R2#
R2#
R2#
R2#
R2#
R2#
R2#
R2#
R2#
R2#
R2#
R2#
R2#
R2#
R2#
R2#
R2#
R2#
R2#
R2#
R2#
R2#
```

2. After configuring EIGRP in Lab04_EIGRP file:
a. Execute the 'show running-config' command in each router and submit the most important parts (i.e. interfaces network configuration) to demonstrate the correct configuration of your topology.
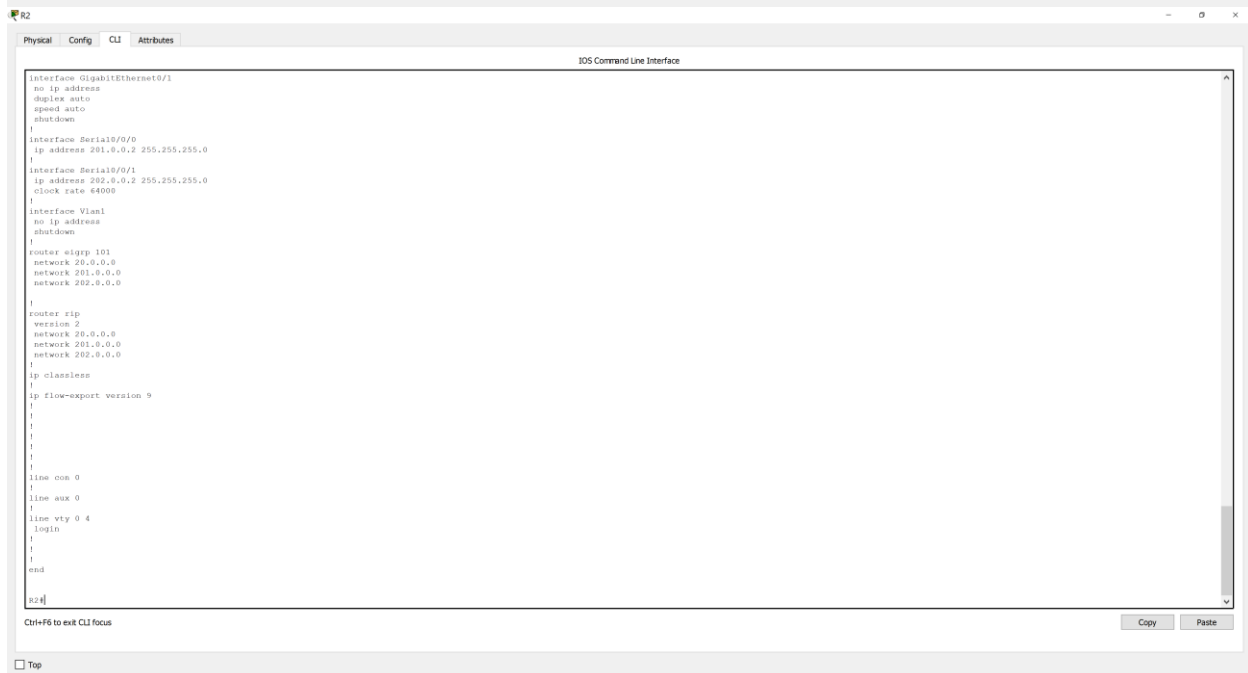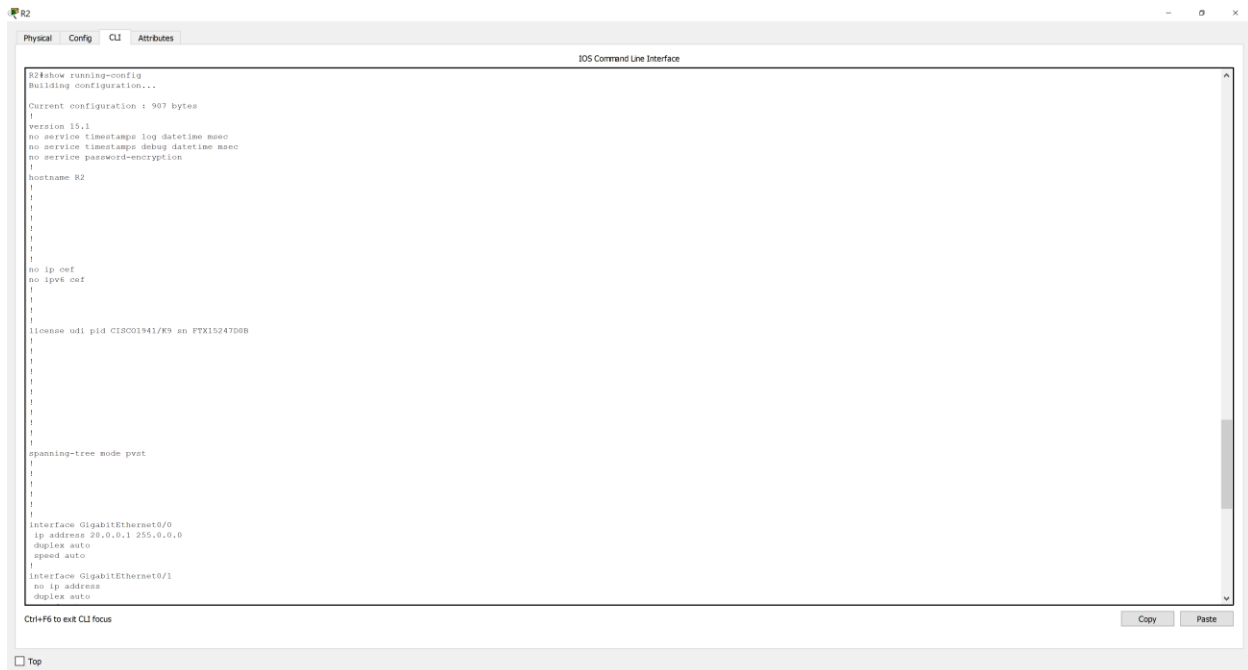

R1#show running-config
Building configuration...

Current configuration : 878 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 CISCO1941/K9 sn FTX1524XR3X
!
!
!
!
!
!
!
!
!
spanning-tree mode pvst
!
!
!
!
interface GigabitEthernet0/0
 ip address 10.0.0.1 255.0.0.0
 duplex auto
 speed auto
!
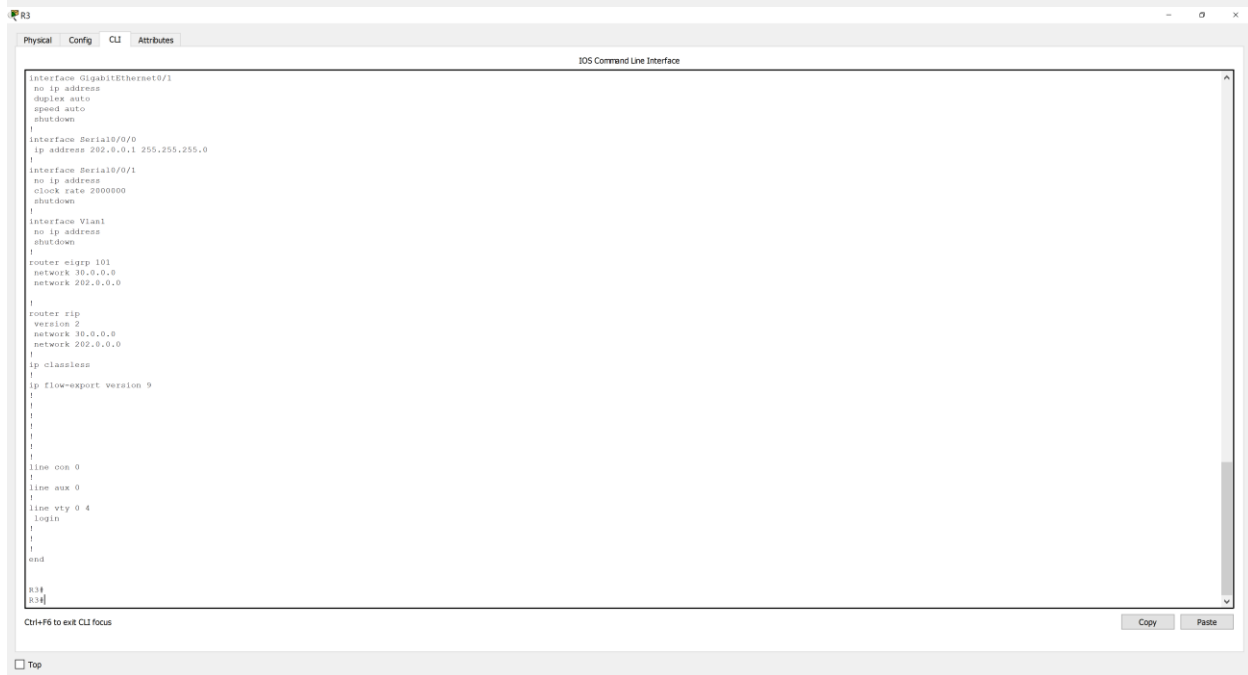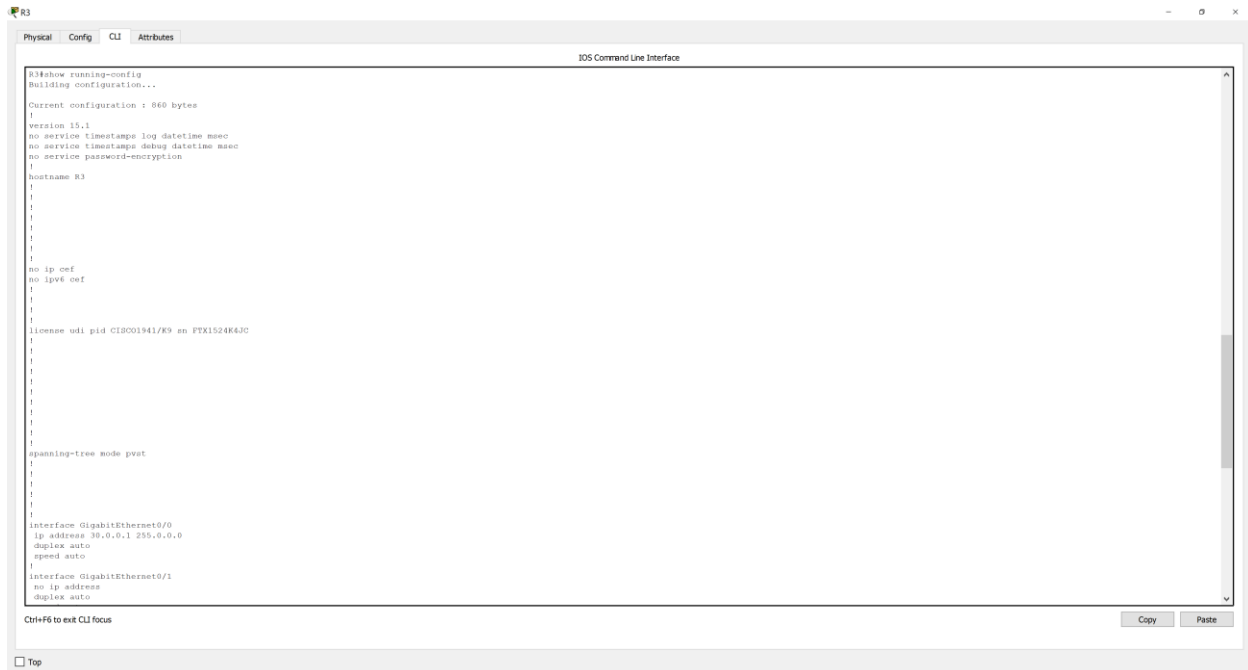interface GigabitEthernet0/1
 no ip address
 duplex auto

Ctrl+F6 to exit CLI focus

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
!
router eigrp 101
 network 10.0.0.0
 network 201.0.0.0
!
!
router rip
 version 2
 network 10.0.0.0
 network 201.0.0.0
!
ip classless
!
ip flow-export version 9
!
!
!
!
!
!
!
line con 0
!
line aux 0
!
line vty 0 4
 login
!
!
!
end

R1#

Ctrl+F6 to exit CLI focus

Physical | Config | **CLI** | Attributes

IOS Command Line Interface

```
R2#show running-config
Building configuration...

Current configuration : 907 bytes
!
version 15.1
no service timestamps log datetime msec
no service timestamps debug datetime msec
no service password-encryption
!
hostname R2
!
!
!
!
!
!
!
!
no ip cef
no ipv6 cef
!
!
!
license udi pid CISCO1941/K9 sn FTX15247D0B
!
!
!
!
!
!
!
!
!
!
!
spanning-tree mode pvst
!
!
!
!
interface GigabitEthernet0/0
 ip address 20.0.0.1 255.0.0.0
 duplex auto
 speed auto
!
interface GigabitEthernet0/1
 no ip address
 duplex auto
```

Ctrl+F6 to exit CLI focus   Copy   Paste

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Physical | Config | **CLI** | Attributes

IOS Command Line Interface

```
interface GigabitEthernet0/1
 no ip address
 duplex auto
 speed auto
 shutdown
!
interface Serial0/0/0
 ip address 201.0.0.2 255.255.255.0
!
interface Serial0/0/1
 ip address 202.0.0.2 255.255.255.0
 clock rate 64000
!
interface Vlan1
 no ip address
 shutdown
!
router eigrp 101
 network 20.0.0.0
 network 201.0.0.0
 network 202.0.0.0
!
router rip
 version 2
 network 20.0.0.0
 network 201.0.0.0
 network 202.0.0.0
!
ip classless
!
ip flow-export version 9
!
!
!
!
!
!
!
line con 0
!
line aux 0
!
line vty 0 4
 login
!
!
!
end

R2#
```

Ctrl+F6 to exit CLI focus   Copy   Paste

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Physical | Config | CLI | Attributes

IOS Command Line Interface

```
R3#show running-config
Building configuration...

Current configuration : 860 bytes
!
version 15.1
no service timestamps log datetime msec
no service timestamps debug datetime msec
no service password-encryption
!
hostname R3
!
!
!
!
!
!
!
!
no ip cef
no ipv6 cef
!
!
!
!
license udi pid CISCO1941/K9 sn FTX1524K4JC
!
!
!
!
!
!
!
!
!
!
!
spanning-tree mode pvst
!
!
!
!
!
interface GigabitEthernet0/0
 ip address 30.0.0.1 255.0.0.0
 duplex auto
 speed auto
!
interface GigabitEthernet0/1
 no ip address
 duplex auto
```

Ctrl+F6 to exit CLI focus   Copy   Paste

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Physical | Config | CLI | Attributes

IOS Command Line Interface

```
interface GigabitEthernet0/1
 no ip address
 duplex auto
 speed auto
 shutdown
!
interface Serial0/0/0
 ip address 202.0.0.1 255.255.255.0
!
interface Serial0/0/1
 no ip address
 clock rate 2000000
 shutdown
!
interface Vlan1
 no ip address
 shutdown
!
router eigrp 101
 network 30.0.0.0
 network 202.0.0.0
!
!
router rip
 version 2
 network 30.0.0.0
 network 202.0.0.0
!
ip classless
!
ip flow-export version 9
!
!
!
!
!
!
!
line con 0
!
line aux 0
!
line vty 0 4
 login
!
!
!
end

R3#
R3#
```

Ctrl+F6 to exit CLI focus   Copy   Paste

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b. Execute the 'show ip protocol' command in router 2 (R2) and submit the most important parts (i.e. routing protocol configuration) to demonstrate the correct configuration of your routing protocol.


```
R2#show ip protocol

Routing Protocol is "eigrp  101 "
  Outgoing update filter list for all interfaces is not set
  Incoming update filter list for all interfaces is not set
  Default networks flagged in outgoing updates
  Default networks accepted from incoming updates
  Redistributing: eigrp 101
  EIGRP-IPv4 Protocol for AS(101)
    Metric weight K1=1, K2=0, K3=1, K4=0, K5=0
    NSF-aware route hold timer is 240
    Router-ID: 20.0.0.1
    Topology : 0 (base)
      Active Timer: 3 min
      Distance: internal 90 external 170
      Maximum path: 4
      Maximum hopcount 100
      Maximum metric variance 1

  Automatic Summarization: disabled
  Automatic address summarization:
  Maximum path: 4
  Routing for Networks:
    20.0.0.0
    201.0.0.0
    202.0.0.0
  Routing Information Sources:
    Gateway       Distance      Last Update
    201.0.0.1        90           1334187
    202.0.0.1        90           1425202
  Distance: internal 90 external 170

Routing Protocol is "rip"
Sending updates every 30 seconds, next due in 15 seconds
Invalid after 180 seconds, hold down 180, flushed after 240
Outgoing update filter list for all interfaces is not set
Incoming update filter list for all interfaces is not set
Redistributing: rip
Default version control: send version 2, receive 2
  Interface             Send  Recv  Triggered RIP  Key-chain
  GigabitEthernet0/0     2     2
  Serial0/0/0            2     2
  Serial0/0/1            2     2
Automatic network summarization is in effect
Maximum path: 4
Routing for Networks:
        20.0.0.0
        201.0.0.0
        202.0.0.0
Passive Interface(s):
Routing Information Sources:
        Gateway       Distance      Last Update
```