

TP Routage Dynamique

RIPv1, RIPv2 et RIPvng

Mohamed Alaoui Mhamdi

Partit1 :tache 4

Q-5/6:

```
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial2/0, changed state to up
```

```
R3>
R3>
R3>
R3>enable
R3#config t
Enter configuration commands, one per line. End with CNTL/Z.
R3(config)#route rip
R3(config-router)#network 192.168.5.0
R3(config-router)#network 192.168.4.8
R3(config-router)#passive-interface f0/0
R3(config-router)#exit
R3(config)#
R3(config)#exit
R3#
%SYS-5-CONFIG_I: Configured from console by console

R3#
R3#copy running-config startup-config
Destination filename [startup-config]?
Building configuration...
[OK]
```

1-activation de protocole dynamique

2-activation de protocole RIP avec la commande: router rip

3- configuration des route des réseau directement connecte ,la methode se fait par classe

Partie 1 :

tache 5

Q-7

The image displays three screenshots of Cisco IOS Command Line Interface (CLI) for three routers: R1, R2, and R3.

Router 1 (R1) CLI:

```
Router 1
Physical Config CLI Attributes
IOS Command Line Interface

R1(config)#route rip
R1(config-router)#exit
R1(config)#exit
R1#
%SYS-5-CONFIG_I: Configured from console by console

R1#show ip route
Codes: C - connected, S - static, I - IGRP, 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

C    192.168.1.0/24 is directly connected, FastEthernet0/0
C    192.168.2.0/24 is directly connected, Serial2/0
R    192.168.3.0/24 [120/1] via 192.168.2.2, 00:00:21, Serial2/0
R    192.168.4.0/24 [120/1] via 192.168.2.2, 00:00:21, Serial2/0

R1#show ip route
Codes: C - connected, S - static, I - IGRP, 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

C    192.168.1.0/24 is directly connected, FastEthernet0/0
C    192.168.2.0/24 is directly connected, Serial2/0
```

Router 2 (R2) CLI:

```
Router 2
Physical Config CLI Attributes
IOS Command Line Interface

C    192.168.4.0/24 is directly connected, Serial3/0

R2#
R2#
R2#
R2#config t
Enter configuration commands, one per line. End with CNTL/Z.
R2(config)#interface s3/0
R2(config-if)#ip address 192.168.4.2
% Incomplete command.
R2(config-if)#ip address 192.168.4.2 255.255.255.0
R2(config-if)#exit
R2(config)#exit
R2#
%SYS-5-CONFIG_I: Configured from console by console

R2#
R2#show ip route
Codes: C - connected, S - static, I - IGRP, 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

R    192.168.1.0/24 [120/1] via 192.168.2.1, 00:00:09, Serial2/0
C    192.168.2.0/24 is directly connected, Serial2/0
C    192.168.3.0/24 is directly connected, FastEthernet0/0
C    192.168.4.0/24 is directly connected, Serial3/0
R    192.168.5.0/24 [120/1] via 192.168.4.1, 00:00:01, Serial3/0

R2#
```

Router 3 (R3) CLI:

```
Router 3
Physical Config CLI Attributes
IOS Command Line Interface

interface FastEthernet1/0
no ip address
duplex auto
speed auto
shutdown
!
interface Serial2/0
ip address 192.168.4.1 255.255.255.0
!
interface Serial3/0
no ip address
clock rate 2000000
!
interface FastEthernet4/0
no ip address
shutdown
!
interface FastEthernet5/0
no ip address
shutdown
!
router rip
network 192.168.4.0
network 192.168.5.0
!
ip classless
!
ip flow-export version 9
!
!
no cdp run
!
!
```

table de routage de R1 et R2 et R3 contient les reseaux

Partie 1

■
■
Q-
8/9:

```
% Invalid input detected at '^' marker.

R1#show ip protocols
Routing Protocol is "rip"
  Sending updates every 30 seconds, next due in 28 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 1, receive any version
    Interface          Send Recv Triggered RIP Key-chain
  FastEthernet0/0      12  1
  Serial2/0            12  1
Automatic network summarization is in effect
Maximum path: 4
Routing for Networks:
  192.168.1.0
  192.168.2.0
  192.168.3.0
Passive Interface(s):
Routing Information Sources:
  Gateway         Distance      Last Update
  192.168.2.2      120           00:00:17
Distance: (default is 120)
R1#debug ip rip
RIP protocol debugging is on
R1#RIP: received v1 update from 192.168.2.2 on Serial2/0
  192.168.3.0 in 1 hops
  192.168.4.0 in 1 hops
  192.168.5.0 in 2 hops
RIP: sending v1 update to 255.255.255.255 via FastEthernet0/0 (192.168.1.1)
RIP: build update entries
  network 192.168.2.0 metric 1
```

**la commande debug ip rip
afficher les mise a jour de
protocole rip chaque 30
seconde**

**la commande show ip protocols afficher
les informations sur le protocole active
et les routes reseaux sur cette router**

Partie 1

scenario B

Q-:18

```
4 FastEthernet/IEEE 802.3 interface(s)
2 Low-speed serial(sync/async) network interface(s)
32K bytes of non-volatile configuration memory.
63488K bytes of ATA CompactFlash (Read/Write)

Press RETURN to get started!

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed sta
%LINK-5-CHANGED: Interface Serial2/0, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial2/0, changed state to

R1>
R1>
R1>enable
R1#config t
Enter configuration commands, one per line. End with CNTL/Z.
R1(config)#route rip
R1(config-router)#network 172.30.0.0
.....
```

**configuration de protocols rip sur R1 et
configuration les deux routes avec address
172.30.0.0**

Partie 1

scenario B :

Q-:19

```
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up
%LINK-5-CHANGED: Interface Serial2/0, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial2/0, changed state to up

R1>
R1>
R1>enable
R1#config t
Enter configuration commands, one per line.  End with CNTL/Z.
R1(config)#route rip
R1(config-router)#network 172.30.0.0
R1(config-router)#passive-interface f0/0
R1(config-router)#
```

on block la mise a jour sur l'interface Fa0/0

on a applique les etapes comme la question q18/19

Partie 1 scenario B :

Q-:20/21

Partie 1

scenario B :

tache 3

Q-:22

```
Router 1
Physical Config CLI Attributes
IOS Command Line Interface
2 Low-speed serial(sync/async) network interface(s)
32K bytes of non-volatile configuration memory.
63488K bytes of ATA CompactFlash (Read/Write)

Press RETURN to get started!

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up
%LINK-5-CHANGED: Interface Serial2/0, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial2/0, changed state to up

R1>
R1>enable
R1#show ip route
Codes: C - connected, S - static, I - IGRP, 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

      172.30.0.0/24 is subnetted, 3 subnets
C       172.30.1.0 is directly connected, FastEthernet0/0
C       172.30.2.0 is directly connected, Serial2/0
R       172.30.3.0 [120/1] via 172.30.2.2, 00:00:05, Serial2/0
R      192.168.4.0/24 [120/1] via 172.30.2.2, 00:00:05, Serial2/0
R      192.168.5.0/24 [120/2] via 172.30.2.2, 00:00:05, Serial2/0

R1#
```

Copy Paste

Partie 1

scenario B :

tache 3

Q-:23

```
R1>
R1>enable
R1#show ip interface brief
```

| Interface | IP-Address | OK? | Method | Status | Protocol |
|-----------------|------------|-----|--------|-----------------------|----------|
| FastEthernet0/0 | 172.30.1.1 | YES | manual | up | up |
| FastEthernet1/0 | unassigned | YES | unset | administratively down | down |
| Serial2/0 | 172.30.2.1 | YES | manual | up | up |
| Serial3/0 | unassigned | YES | unset | administratively down | down |
| FastEthernet4/0 | unassigned | YES | unset | administratively down | down |
| FastEthernet5/0 | unassigned | YES | unset | administratively down | down |

```
R1>enable
R1#show ip interface brief
```

| Interface | IP-Address | OK? | Method | Status | Protocol |
|-----------------|------------|-----|--------|-----------------------|----------|
| FastEthernet0/0 | 172.30.1.1 | YES | manual | up | up |
| FastEthernet1/0 | unassigned | YES | unset | administratively down | down |
| Serial2/0 | 172.30.2.1 | YES | manual | up | up |
| Serial3/0 | unassigned | YES | unset | administratively down | down |
| FastEthernet4/0 | unassigned | YES | unset | administratively down | down |
| FastEthernet5/0 | unassigned | YES | unset | administratively down | down |

```
R1#show ip protocols
Routing Protocol is "rip"
Sending updates every 30 seconds, next due in 25 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 1, receive any version
  Interface      Send Recv Triggered RIP Key-chain
  Serial2/0      12 1
Automatic network summarization is in effect
Maximum path: 4
Routing for Networks:
  172.30.0.0
Passive Interface(s):
  FastEthernet0/0
Routing Information Sources:
  Gateway         Distance      Last Update
  172.30.2.2      120          00:00:04
Distance: (default is 120)
R1#
```

Partie 1

scenario B :

tache 3

Q-:24

```
R1#show ip protocols
Routing Protocol is "rip"
Sending updates every 30 seconds, next due in 25 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 1, receive any version
  Interface          Send Recv Triggered RIP Key-chain
  Serial2/0           12 1
Automatic network summarization is in effect
Maximum path: 4
Routing for Networks:
  172.30.0.0
Passive Interface(s):
  FastEthernet0/0
Routing Information Sources:
  Gateway         Distance      Last Update
  172.30.2.2       120           00:00:04
Distance: (default is 120)
R1#debug ip rip
RIP protocol debugging is on
R1#RIP: received v1 update from 172.30.2.2 on Serial2/0
  172.30.3.0 in 1 hops
  192.168.4.0 in 1 hops
  192.168.5.0 in 2 hops
RIP: sending v1 update to 255.255.255.255 via Serial2/0 (172.30.2.1)
RIP: build update entries
  network 172.30.1.0 metric 1
```

Copy

Paste

Partie 1

scenario

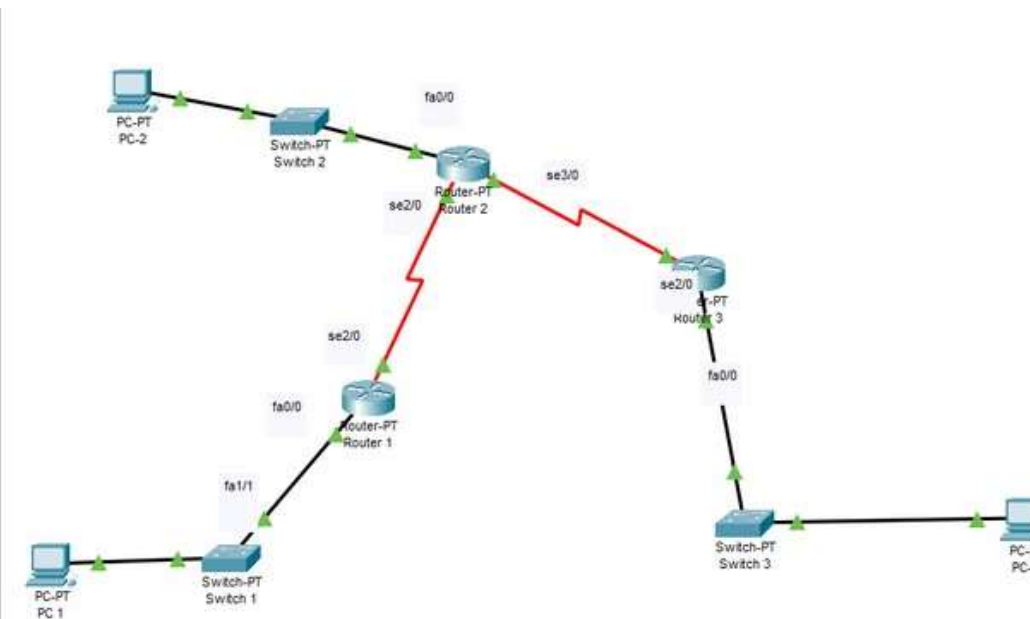
B : tache 3

Q-:25

```
R1#RIP: received v1 update from 172.30.2.2 on Serial2/0
      172.30.3.0 in 1 hops
      192.168.4.0 in 1 hops
      192.168.5.0 in 2 hops
undebug all RIP: sending v1 update to 255.255.255.255 via Serial2/0 (172.30.2.1)
RIP: build update entries
      network 172.30.1.0 metric 1

All possible debugging has been turned off
R1#
```

Q-:26



la connectivite reussit sur tout les topologie



Partie 1

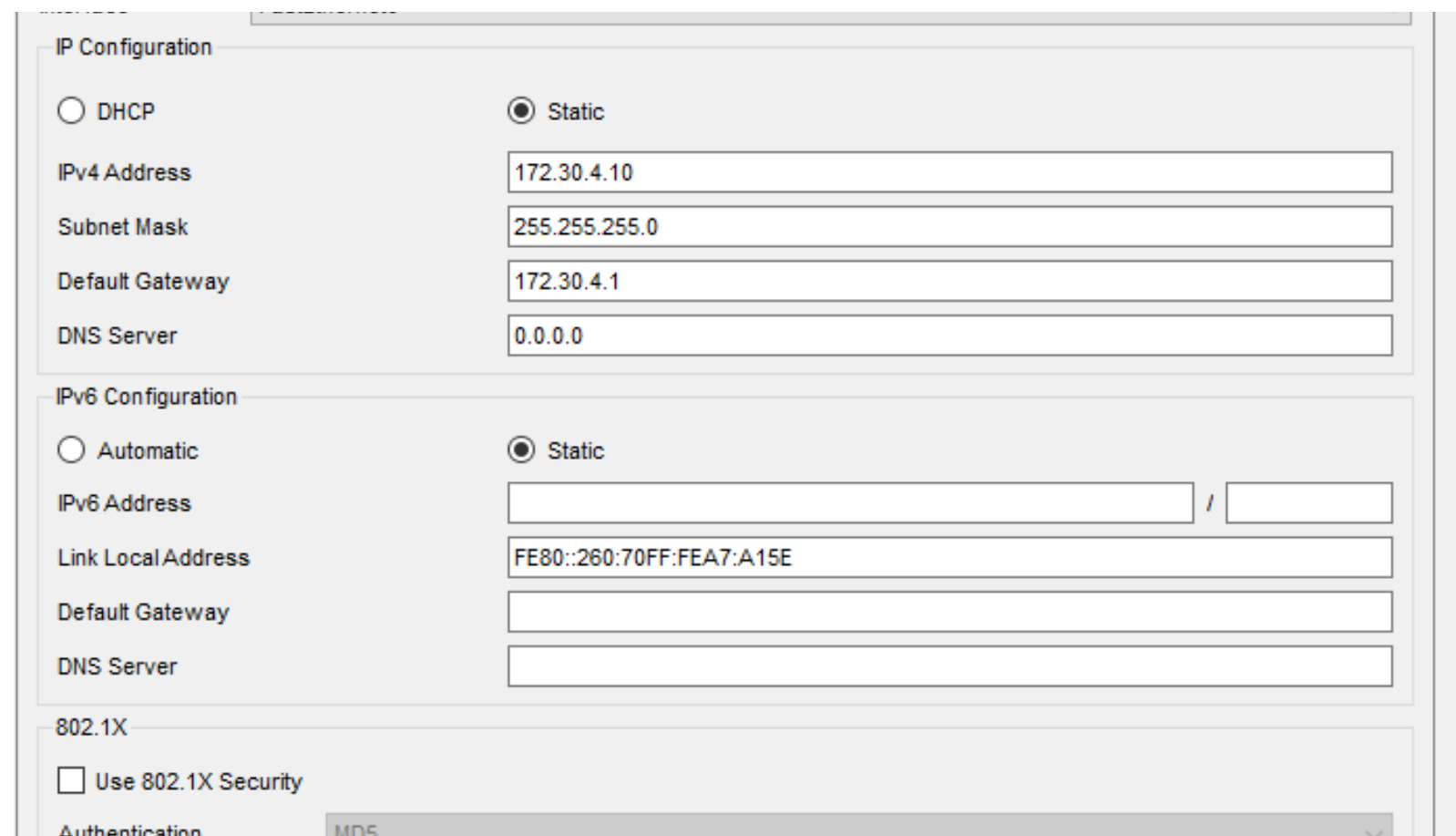
scenario B :

tache 3

Q-:27

```
R3(config-if)#exit
R3(config)#
R3(config)#interface fa0/0
R3(config-if)#ip address 172.30.4.0 255.255.255.0
Bad mask /24 for address 172.30.4.0
R3(config-if)#ip address 172.30.4.0 255.255.255.0
Bad mask /24 for address 172.30.4.0
R3(config-if)#ip address 172.30.4.1 255.255.255.0
R3(config-if)#
```

Q-:28



The screenshot displays a network configuration window with two main sections: IP Configuration and IPv6 Configuration.

IP Configuration:

- ☐ DHCP
- ☒ Static
- IPv4 Address: 172.30.4.10
- Subnet Mask: 255.255.255.0
- Default Gateway: 172.30.4.1
- DNS Server: 0.0.0.0

IPv6 Configuration:

- ☐ Automatic
- ☒ Static
- IPv6 Address: (empty field) / (empty field)
- Link Local Address: FE80::260:70FF:FEA7:A15E
- Default Gateway: (empty field)
- DNS Server: (empty field)

802.1X:

- ☐ Use 802.1X Security
- Authentication: MD5

Partie 1

scenario B :


tache 3

Q-:29

```
^
% Invalid input detected at '^' marker.
R3(config)#route rip
R3(config-router)#no network 192.168.5.0
```

Q-:30

```
R3(config)#route rip
R3(config-router)#no network 192.168.5.0
R3(config-router)#network 172.30.4.0
R3(config-router)#
```



Partie 1

scenario B :

tache 3

Q-:31

Q-:32

Q-:33

```
Pinging 172.30.4.10 with 32 bytes of data:
```

```
Reply from 172.30.1.1: Destination host unreachable.  
Reply from 172.30.1.1: Destination host unreachable.  
Reply from 172.30.1.1: Destination host unreachable.  
Reply from 172.30.1.1: Destination host unreachable.
```

```
Ping statistics for 172.30.4.10:
```

```
Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
```


Partie 1

scenario c :

tache 1

Q-:35

```
R2#config t
Enter configuration commands, one per line.  End with CNTL/Z.
R2(config)#route rip
R2(config-router)#no network 192.168.4.0
R2(config-router)#exir
^
```

Q-:36

```
R3(config)#no router rip
R3(config)#
R3(config)#exit
```

Partie 1

scenario B :

tache 2

Q-:37

```

R3(config)#
Enter configuration commands, one per line.  End with CNTL/Z.
R3(config)#ip route 172.30.0.0 255.255.0.0 se2/0
R3(config)#

```

Copy

Partie 1

scenario B :

tache 3

Q-:38

```
R2(config)#ip route 0.0.0.0 0.0.0.0 se3/0  
R2(config)#
```

Q-:39

```
R2(config-router)#default-information originate  
R2(config-router)#  
R2(config-router)#
```

Partie 1

scenario c :

tache 4

Q-:40

```
R1>show ip route
Codes: C - connected, S - static, I - IGRP, 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 172.30.2.2 to network 0.0.0.0

    172.30.0.0/24 is subnetted, 3 subnets
C       172.30.1.0 is directly connected, FastEthernet0/0
C       172.30.2.0 is directly connected, Serial2/0
R       172.30.3.0 [120/1] via 172.30.2.2, 00:00:01, Serial2/0
R*    0.0.0.0/0 [120/1] via 172.30.2.2, 00:00:01, Serial2/0

R1>
```

[Copy](#)[Pa](#)

Partie 1

scenario c :

tache 4

Q-:41

```
R1>enable
R1#debug ip rip
RIP protocol debugging is on
R1#RIP: sending v1 update to 255.255.255.255 via Serial2/0 (172.30.2.1)
RIP: build update entries
      network 172.30.1.0 metric 1
RIP: received v1 update from 172.30.2.2 on Serial2/0
      0.0.0.0 in 1 hops
      172.30.3.0 in 1 hops
```

Q-:42

```
      172.30.3.0 in 1 hops
R1#undebug all
All possible debugging has been turned off
R1#
```

Q-:43

```
R3#show ip route
Codes: C - connected, S - static, I - IGRP, 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

      172.30.0.0/16 is variably subnetted, 2 subnets, 2 masks
S       172.30.0.0/16 is directly connected, Serial2/0
C       172.30.4.0/24 is directly connected, FastEthernet0/0
      192.168.4.0/30 is subnetted, 1 subnets
C       192.168.4.8 is directly connected, Serial2/0
```

Partie

2 :

ta

la connectivite est regle dans chaque station

ta

Q-:4

```
Router#config t
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#router rip
Router(config-router)#
Router(config-router)#version 2
Router(config-router)#passive-interface fa0/0
Router(config-router)#network 17.30.10.0
Router(config-router)#network 10.1.1.0
Router(config-router)#
```


Partie 2

Etape 4

Q-:5

Q-:6

```
R3>
R3>ena
R3#config t
Enter configuration commands, one per line.  End with CNTL/Z.
R3(config)#router rip
R3(config-router)#version 2
R3(config-router)#network 172.30.10.0
R3(config-router)#network 10.2.2.1
R3(config-router)#passive-interface fa0/0
R3(config-router)#exit
R3(config)#
```

```
R2>
R2>
R2>ena
R2#config t
Enter configuration commands, one per line.  End with CNTL/Z.
R2(config)#router rip
R2(config-router)#network 10.1.1.0
```

Partie 2

tache 5

Q-:8

```
C:\>ping 172.30.30.3

Pinging 172.30.30.3 with 32 bytes of data:

Reply from 172.30.10.1: Destination host unreachable.
Reply from 172.30.10.1: Destination host unreachable.
Reply from 172.30.10.1: Destination host unreachable.
Reply from 172.30.10.1: Destination host unreachable.

Ping statistics for 172.30.30.3:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

C:\>
```

tous les ping sont échoue

Partie 2

tache 5 Q-:9

```
Router>
Router>ena
Router#show ip protocols
Routing Protocol is "rip"
Sending updates every 30 seconds, next due in 2 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 1, receive any version
  Interface          Send Recv Triggered RIP Key-chain
  Serial2/0           22
Automatic network summarization is in effect
Maximum path: 4
Routing for Networks:
  10.0.0.0
  17.0.0.0
```

```
R2#show ip protocols
Routing Protocol is "rip"
Sending updates every 30 seconds, next due in 2 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 1, receive any version
  Interface          Send Recv Triggered RIP Key-chain
  Serial3/0           12 1
  Serial2/0           12 1
Automatic network summarization is in effect
Maximum path: 4
Routing for Networks:
  10.0.0.0
```

```
P: R3>ena
R: R3#show ip protocols
D: Routing Protocol is "rip"
R: Sending updates every 30 seconds, next due in 20 seconds
D: Invalid after 180 seconds, hold down 180, flushed after 240
R: 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
  Serial2/0           22
Automatic network summarization is in effect
Maximum path: 4
Routing for Networks:
  10.0.0.0
  172.30.0.0
Passive Interface(s):
  FastEthernet0/0
Routing Information Sources:
```

Partie 2

tache 5 10

```
R2>ena
R2#debug ip rip
RIP protocol debugging is on
R2#RIP: sending v1 update to 255.255.255.255 via Serial3/0 (10.1.1.2)
RIP: build update entries
      network 10.2.2.0 metric 1
RIP: sending v1 update to 255.255.255.255 via Serial2/0 (10.2.2.2)
RIP: build update entries
      network 10.1.1.0 metric 1
RIP: sending v1 update to 255.255.255.255 via Serial3/0 (10.1.1.2)
RIP: build update entries
      network 10.2.2.0 metric 1
RIP: sending v1 update to 255.255.255.255 via Serial2/0 (10.2.2.2)
RIP: build update entries
      network 10.1.1.0 metric 1
RIP: sending v1 update to 255.255.255.255 via Serial3/0 (10.1.1.2)
RIP: build update entries
      network 10.2.2.0 metric 1
RIP: sending v1 update to 255.255.255.255 via Serial2/0 (10.2.2.2)
RIP: build update entries
      network 10.1.1.0 metric 1
RIP: sending v1 update to 255.255.255.255 via Serial3/0 (10.1.1.2)
RIP: build update entries
      network 10.2.2.0 metric 1
RIP: sending v1 update to 255.255.255.255 via Serial2/0 (10.2.2.2)
```

Partie 2

Module 6

Q-:11

Q-:12

Q-:13

```
Router#  
^  
% Invalid input detected at '^' marker.  
  
Router#config t  
Enter configuration commands, one per line. End with CNTL/Z.  
Router(config)#router rip  
Router(config-router)#no auto-summary  
Router(config-router)#clear ip route  
^  
% Invalid input detected at '^' marker.  
  
Router(config-router)#
```

```
Router#clear ip route *  
Router#
```

Paste

```
Router#show ip route  
Codes: C - connected, S - static, I - IGRP, 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  
  
10.0.0.0/30 is subnetted, 1 subnets  
C      10.1.1.0 is directly connected, Serial2/0  
172.30.0.0/24 is subnetted, 1 subnets  
C      172.30.10.0 is directly connected, FastEthernet0/0  
  
Router#
```

Copy

Paste

Partie 2

tache 6

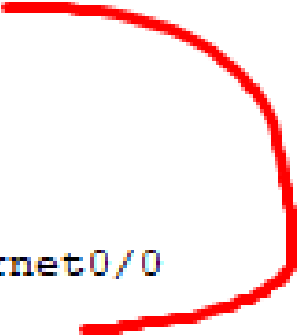
Q-14

```
R3>
R3>ena
R3#show ip route
Codes: C - connected, S - static, I - IGRP, 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

    10.0.0.0/30 is subnetted, 1 subnets
C      10.2.2.0 is directly connected, Serial2/0
    172.30.0.0/24 is subnetted, 1 subnets
C      172.30.30.0 is directly connected, FastEthernet0/0

R3#
```



les masques de sous reseau sont presente sur table de routage

Q-15

Partie 3

tache 1
et 2

Partie 3

Atelier 3

Q-3

```
Router(config)#ipv6 unicast-routing
Router(config)#interface fa0/0
Router(config-if)#ipv6 rip router test1
```

Q-4

```
Router(config)#interface fa0/0
Router(config-if)#ipv6 rip test1 enable
Router(config-if)#exit
Router(config)#interface eth1/0
Router(config-if)#ipv6 rip test1 enable
Router(config-if)#exit
Router(config)#
```

Q-5

```
Router>
Router>enable
Router#config t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#ipv6 unicast-routing
Router(config)#interface eth1/0
Router(config-if)#ipv6 rip test2 enable
Router(config-if)#exit
Router(config)#
```

Partie 3

Tranche 3

Q-6

```
Router(config)#ipv6 unicast-routing
Router(config)#interface fa0/0
Router(config-if)#ipv6 rip test3 enable
Router(config-if)#
Router(config-if)#exit
Router(config)#interface
% Incomplete command.
Router(config)#interface eth1/0
Router(config-if)#ipv6 rip test3 enable
Router(config-if)#exit
Router(config)#
```

Copy

Paste

☐ Top

```
Router#show ipv6 protocols
IPv6 Routing Protocol is "connected"
IPv6 Routing Protocol is "ND"
IPv6 Routing Protocol is "rip test1"
  Interfaces:
    FastEthernet0/0
    Ethernet1/0
  Redistribution:
    None
Router#
```

verification de ripng

Partie 3

Etape 3

Q-:8

router 1

```
Router#show ipv6 route
IPv6 Routing Table - 7 entries
Codes: C - Connected, L - Local, S - Static, R - RIP, B - BGP
        U - Per-user Static route, M - MIPv6
        I1 - ISIS L1, I2 - ISIS L2, IA - ISIS interarea, IS - ISIS summary
        ND - ND Default, NDp - ND Prefix, DCE - Destination, NDr - Redirect
        O - OSPF intra, OI - OSPF inter, OE1 - OSPF ext 1, OE2 - OSPF ext 2
        ON1 - OSPF NSSA ext 1, ON2 - OSPF NSSA ext 2
        D - EIGRP, EX - EIGRP external
C   2001:DB8:ACAD:A::/64 [0/0]
    via FastEthernet0/0, directly connected
L   2001:DB8:ACAD:A::1/128 [0/0]
    via FastEthernet0/0, receive
R   2001:DB8:ACAD:C::/64 [120/3]
    via FE80::210:11FF:FE1D:2607, Ethernet1/0
C   2001:DB8:ACAD:12::/64 [0/0]
    via Ethernet1/0, directly connected
L   2001:DB8:ACAD:12::1/128 [0/0]
    via Ethernet1/0, receive
R   2001:DB8:ACAD:23::/64 [120/2]
    via FE80::210:11FF:FE1D:2607, Ethernet1/0
L   FF00::/8 [0/0]
    via Null0, receive
Router#
```

Copy

Paste

Partie 3

tâche 3

Q-:8

router 2

```
None

Router#show ipv6 route
IPv6 Routing Table - 9 entries
Codes: C - Connected, L - Local, S - Static, R - RIP, B - BGP
        U - Per-user Static route, M - MIPv6
        I1 - ISIS L1, I2 - ISIS L2, IA - ISIS interarea, IS - ISIS summary
        ND - ND Default, NDp - ND Prefix, DCE - Destination, NDr - Redirect
        O - OSPF intra, OI - OSPF inter, OE1 - OSPF ext 1, OE2 - OSPF ext 2
        ON1 - OSPF NSSA ext 1, ON2 - OSPF NSSA ext 2
        D - EIGRP, EX - EIGRP external
R   2001:DB8:ACAD:A::/64 [120/2]
    via FE80::201:63FF:FE07:2601, Ethernet1/0
C   2001:DB8:ACAD:B::/64 [0/0]
    via FastEthernet0/0, directly connected
L   2001:DB8:ACAD:B::2/128 [0/0]
    via FastEthernet0/0, receive
R   2001:DB8:ACAD:C::/64 [120/2]
    via FE80::201:64FF:FE31:E701, Ethernet1/1
C   2001:DB8:ACAD:12::/64 [0/0]
    via Ethernet1/0, directly connected
L   2001:DB8:ACAD:12::2/128 [0/0]
    via Ethernet1/0, receive
C   2001:DB8:ACAD:23::/64 [0/0]
    via Ethernet1/1, directly connected
--More--
```

Copy

Paste

Partie 3

Module 3

Q-:8

router 3

```
Router>show ipv6 route
IPv6 Routing Table - 7 entries
Codes: C - Connected, L - Local, S - Static, R - RIP, B - BGP
       U - Per-user Static route, M - MIPv6
       I1 - ISIS L1, I2 - ISIS L2, IA - ISIS interarea, IS - ISIS summary
       ND - ND Default, NDp - ND Prefix, DCE - Destination, NDr - Redirect
       O - OSPF intra, OI - OSPF inter, OE1 - OSPF ext 1, OE2 - OSPF ext 2
       ON1 - OSPF NSSA ext 1, ON2 - OSPF NSSA ext 2
       D - EIGRP, EX - EIGRP external
R  2001:DB8:ACAD:A::/64 [120/3]
   via FE80::201:96FF:FE80:843E, Ethernet1/0
C  2001:DB8:ACAD:C::/64 [0/0]
   via FastEthernet0/0, directly connected
L  2001:DB8:ACAD:C::3/128 [0/0]
   via FastEthernet0/0, receive
R  2001:DB8:ACAD:12::/64 [120/2]
   via FE80::201:96FF:FE80:843E, Ethernet1/0
C  2001:DB8:ACAD:23::/64 [0/0]
   via Ethernet1/0, directly connected
L  2001:DB8:ACAD:23::3/128 [0/0]
   via Ethernet1/0, receive
L  FE00::/8 [0/0]
   via Null0, receive
Router>
```

Copy

Paste

Partie 3

tache 3

Q-9

pc-a vers pc-b

```
C:\>ping 2001:DB8:ACAD:B::B

Pinging 2001:DB8:ACAD:B::B with 32 bytes of data:

Request timed out.
Request timed out.
Request timed out.
Request timed out.

Ping statistics for 2001:DB8:ACAD:B::B:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
```

echoue parceque on a pas configure network

pc-a vers pc-c

```
C:\>ping 2001:DB8:ACAD:C::C

Pinging 2001:DB8:ACAD:C::C with 32 bytes of data:

Reply from 2001:DB8:ACAD:C::C: bytes=32 time=22ms TTL=125
Reply from 2001:DB8:ACAD:C::C: bytes=32 time=10ms TTL=125
Reply from 2001:DB8:ACAD:C::C: bytes=32 time=5ms TTL=125
Reply from 2001:DB8:ACAD:C::C: bytes=32 time=3ms TTL=125

Ping statistics for 2001:DB8:ACAD:C::C:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 3ms, Maximum = 22ms, Average = 10ms
```

Partie 3

Q-:9
tache 3

pc-c vers pc-b

echoue parceque on a pas configure network
de pc-b

pc-c vers pc-a

```
C:\>ping 2001:DB8:ACAD:B::B

Pinging 2001:DB8:ACAD:B::B with 32 bytes of data:

Reply from 2001:DB8:ACAD:C::3: Destination host unreachable.
Reply from 2001:DB8:ACAD:C::3: Destination host unreachable.
Reply from 2001:DB8:ACAD:C::3: Destination host unreachable.
Reply from 2001:DB8:ACAD:C::3: Destination host unreachable.

Ping statistics for 2001:DB8:ACAD:B::B:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
```

```
Pinging 2001:DB8:ACAD:A::A with 32 bytes of data:

Reply from 2001:DB8:ACAD:A::A: bytes=32 time=2ms TTL=125
Reply from 2001:DB8:ACAD:A::A: bytes=32 time=2ms TTL=125
Reply from 2001:DB8:ACAD:A::A: bytes=32 time=2ms TTL=125
Reply from 2001:DB8:ACAD:A::A: bytes=32 time=2ms TTL=125

Ping statistics for 2001:DB8:ACAD:A::A:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 2ms, Maximum = 2ms, Average = 2ms
```

Partie 3

Atelier 4

Q-10

```
Router(config-if)#ipv6 route ::0/64 fa0/0
Router(config)#
```

Q-11

```
R2(config)#interface Serial0/2/0
R2(config-if)#ipv6 rip Test2 default-information originate
                                     ^
% Invalid input detected at '^' marker.

R2(config-if)#ipv6 rip Test2 default-information originate
R2(config-if)#ex
R2(config)#interface Serial0/3/0
R2(config-if)#ipv6 rip Test2 default-information originate
```


Partie 3

Tranche 5

Q-12

```
R2#sh ipv6 route
IPv6 Routing Table - 10 entries
Codes: C - Connected, L - Local, S - Static, R - RIP, B - BGP
        U - Per-user Static route, M - MIPv6
        I1 - ISIS L1, I2 - ISIS L2, IA - ISIS interarea, IS - ISIS summary
        O - OSPF intra, OI - OSPF inter, OE1 - OSPF ext 1, OE2 - OSPF ext 2
        ON1 - OSPF NSSA ext 1, ON2 - OSPF NSSA ext 2
        D - EIGRP, EX - EIGRP external
S   ::/64 [1/0]
    via ::, FastEthernet0/0
R   2001:DB8:ACAD:A::/64 [120/2]
    via FE80::1, Serial0/2/0
C   2001:DB8:ACAD:B::/64 [0/0]
    via ::, FastEthernet0/0
L   2001:DB8:ACAD:B::2/128 [0/0]
    via ::, FastEthernet0/0
R   2001:DB8:ACAD:C::/64 [120/2]
    via FE80::3, Serial0/3/0
C   2001:DB8:ACAD:12::/64 [0/0]
    via ::, Serial0/2/0
L   2001:DB8:ACAD:12::2/128 [0/0]
    via ::, Serial0/2/0
C   2001:DB8:ACAD:23::/64 [0/0]
    via ::, Serial0/3/0
L   2001:DB8:ACAD:23::2/128 [0/0]
    via ::, Serial0/3/0
L   FF00::/8 [0/0]
    via ::, Null0
```

Q-13

```
R1#sh ipv6 route
IPv6 Routing Table - 8 entries
Codes: C - Connected, L - Local, S - Static, R - RIP, B - BGP
        U - Per-user Static route, M - MIPv6
        I1 - ISIS L1, I2 - ISIS L2, IA - ISIS interarea, IS - ISIS summary
        O - OSPF intra, OI - OSPF inter, OE1 - OSPF ext 1, OE2 - OSPF ext 2
        ON1 - OSPF NSSA ext 1, ON2 - OSPF NSSA ext 2
        D - EIGRP, EX - EIGRP external
R   ::/0 [120/1]
    via FE80::2, Serial0/2/0
C   2001:DB8:ACAD:A::/64 [0/0]
    via ::, FastEthernet0/0
L   2001:DB8:ACAD:A::1/128 [0/0]
    via ::, FastEthernet0/0
R   2001:DB8:ACAD:C::/64 [120/3]
    via FE80::2, Serial0/2/0
C   2001:DB8:ACAD:12::/64 [0/0]
    via ::, Serial0/2/0
L   2001:DB8:ACAD:12::1/128 [0/0]
    via ::, Serial0/2/0
R   2001:DB8:ACAD:23::/64 [120/2]
    via FE80::2, Serial0/2/0
L   FF00::/8 [0/0]
    via ::, Null0
```

Partie 3

Tranche 5

Q-:13

```
R3#sh ipv6 route
IPv6 Routing Table - 8 entries
Codes: C - Connected, L - Local, S - Static, R - RIP, B - BGP
       U - Per-user Static route, M - MIPv6
       I1 - ISIS L1, I2 - ISIS L2, IA - ISIS interarea, IS - ISIS summary
       O - OSPF intra, OI - OSPF inter, OE1 - OSPF ext 1, OE2 - OSPF ext 2
       ON1 - OSPF NSSA ext 1, ON2 - OSPF NSSA ext 2
       D - EIGRP, EX - EIGRP external
R   ::/0 [120/1]
    via FE80::2, Serial0/2/0
R   2001:DB8:ACAD:A::/64 [120/3]
    via FE80::2, Serial0/2/0
C   2001:DB8:ACAD:C::/64 [0/0]
    via ::, FastEthernet0/0
L   2001:DB8:ACAD:C::3/128 [0/0]
    via ::, FastEthernet0/0
R   2001:DB8:ACAD:12::/64 [120/2]
    via FE80::2, Serial0/2/0
C   2001:DB8:ACAD:23::/64 [0/0]
    via ::, Serial0/2/0
L   2001:DB8:ACAD:23::3/128 [0/0]
    via ::, Serial0/2/0
L   FF00::/8 [0/0]
    via ::, Null0
```


Partie 3

tache 5

Q-14 pc a

pc c

```
C:\>ping 2001:DB8:ACAD:B::B

Pinging 2001:DB8:ACAD:B::B with 32 bytes of data:

Reply from 2001:DB8:ACAD:B::B: bytes=32 time=1ms TTL=126
Reply from 2001:DB8:ACAD:B::B: bytes=32 time=1ms TTL=126
Reply from 2001:DB8:ACAD:B::B: bytes=32 time=1ms TTL=126
Reply from 2001:DB8:ACAD:B::B: bytes=32 time=1ms TTL=126

Ping statistics for 2001:DB8:ACAD:B::B:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
C:\>ping 2001:DB8:ACAD:B::B

Pinging 2001:DB8:ACAD:B::B with 32 bytes of data:

Reply from 2001:DB8:ACAD:B::B: bytes=32 time=1ms TTL=126
Reply from 2001:DB8:ACAD:B::B: bytes=32 time=1ms TTL=126
Reply from 2001:DB8:ACAD:B::B: bytes=32 time=1ms TTL=126
Reply from 2001:DB8:ACAD:B::B: bytes=32 time=1ms TTL=126

Ping statistics for 2001:DB8:ACAD:B::B:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 1ms, Maximum = 1ms, Average = 1ms
```