



**Department of Computer Science and Engineering**  
**Islamic University of Technology (IUT)**  
A subsidiary organ of OIC

**Lab 02**

**CSE 4616: Wireless Networks Lab**

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**Section:** A

**Semester:** Sixth

**Academic Year:** 2021-2022

## Questions and Answer:

### IP Addresses of Hosts:

1. What is the IP address of **PC1** of the subnetwork “**Network1**”?  
Ans: 172.20.20.4 /24
2. What is the default gateway address of **PC1** of the subnetwork “**Network1**”?  
Ans: 172.20.20.1
3. What is the IP address of **PC2** of the subnetwork “**Network1**”?  
Ans: 172.20.20.5 /24
4. What is the default gateway address of **PC2** of the subnetwork “**Network1**”?  
Ans: 172.20.20.1
5. What is the IP address of **PC3** of the subnetwork “**Network2**”?  
Ans: 10.10.20.4 /24
6. What is the default gateway address of **PC3** of the subnetwork “**Network2**”?  
Ans: 10.10.20.1
7. What is the IP address of **PC4** of the subnetwork “**Network2**”?  
Ans: 10.10.20.5 /24
8. What is the default gateway address of **PC4** of the subnetwork “**Network2**”?  
Ans: 10.10.20.1
9. What is the IP address of **PC5** of the subnetwork “**Network3**”?  
Ans: 192.168.20.4 /24
10. What is the default gateway address of **PC5** of the subnetwork “**Network3**”?  
Ans: 192.168.20.1
11. What is the IP address of **PC6** of the subnetwork “**Network3**”?  
Ans: 192.168.20.5 /24
12. What is the default gateway address of **PC6** of the subnetwork “**Network3**”?  
Ans: 192.168.20.1

## Screenshot of the routing table of the Routers:

13. Add a screenshot of the routing table of **Router0** of the subnetwork “**Network1**”.

Ans:

```
R0_120#show ip route
Codes: 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
       i - IS-IS, su - IS-IS summary, 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

    200.200.20.0/30 is subnetted, 3 subnets
R       200.200.20.4 [120/1] via 200.200.20.1, 00:00:10, Serial0/0
C       200.200.20.0 is directly connected, Serial0/0
R       200.200.20.8 [120/1] via 200.200.20.1, 00:00:10, Serial0/0
    172.20.0.0/24 is subnetted, 1 subnets
C       172.20.20.0 is directly connected, Ethernet0/0
R       192.168.20.0/24 [120/10] via 200.200.20.1, 00:00:10, Serial0/0
R       10.0.0.0/8 [120/10] via 200.200.20.1, 00:00:10, Serial0/0
R0_120#
```

14. Add a screenshot of the routing table of **Router1** of the subnetwork “**Network2**”.

Ans:

```
R1_120#show ip route
Codes: 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
       i - IS-IS, su - IS-IS summary, 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

    200.200.20.0/30 is subnetted, 1 subnets
C       200.200.20.4 is directly connected, Serial0/0
    172.20.0.0/24 is subnetted, 1 subnets
S       172.20.20.0 [1/0] via 200.200.20.5
S       192.168.20.0/24 [1/0] via 200.200.20.5
    10.0.0.0/24 is subnetted, 1 subnets
C       10.10.20.0 is directly connected, Ethernet0/0
R1_120#
```

15. Add a screenshot of the routing table of **Router2** of the subnetwork “**Network3**”.

Ans:

```
R2_120#show ip route
Codes: 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
       i - IS-IS, su - IS-IS summary, 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

    200.200.20.0/30 is subnetted, 3 subnets
O E2   200.200.20.4 [110/200] via 200.200.20.9, 00:02:16, Serial0/0
O E2   200.200.20.0 [110/200] via 200.200.20.9, 00:02:16, Serial0/0
C       200.200.20.8 is directly connected, Serial0/0
O E2  172.20.0.0/16 [110/200] via 200.200.20.9, 00:02:16, Serial0/0
C     192.168.20.0/24 is directly connected, Ethernet0/0
      10.0.0.0/24 is subnetted, 1 subnets
O E2   10.10.20.0 [110/200] via 200.200.20.9, 00:02:12, Serial0/0
R2_120#
```

16. Add a screenshot of the routing table of the **Core Router**.

Ans:

```
CR_120#show ip route
Codes: 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
       i - IS-IS, su - IS-IS summary, 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

    200.200.20.0/30 is subnetted, 3 subnets
C       200.200.20.4 is directly connected, Serial0/1
C       200.200.20.0 is directly connected, Serial0/0
C       200.200.20.8 is directly connected, Serial0/2
R     172.20.0.0/16 [120/1] via 200.200.20.2, 00:00:12, Serial0/0
O     192.168.20.0/24 [110/74] via 200.200.20.10, 00:03:20, Serial0/2
      10.0.0.0/24 is subnetted, 1 subnets
S       10.10.20.0 [1/0] via 200.200.20.6
CR_120#
```

17. Add a screenshot of the complete topology with proper labeling after configuration.

Ans:

