| Kafrelsheikh University - Faculty of Engineering | | | |
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| **Course** | Network Security | **Date** | 20/6/2021 |
| **Time** | 2 Hours | **Mark** | 40 |
| **Students** | 4th year Electronics and Electrical Communications | | |

## Answer all the following questions:

**Q1: In the following configuration:**

- R1(config)# access-list 1 deny 172.16.4.0 0.0.0.255
- R1(config)# access-list 1 permit any
- R1(config)# interface FastEthernet 0/0
- R1(config-if)# ip access-group 1 out
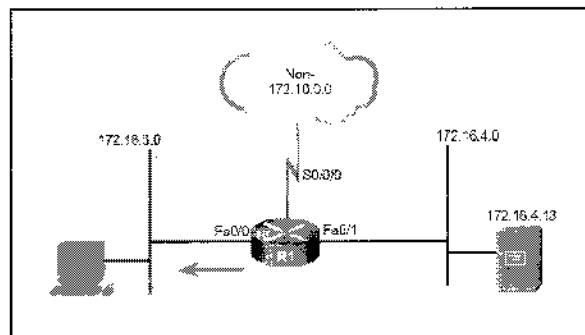


a- Explain each line in the configuration code.                                    (4 Marks)

b- What happens if the second line in the configuration code is omitted? Explain your answer.                                    (3 Marks)

c- What happens if the access list is moved as close to the source? Explain your answer.                                    (3 Marks)

**Q3. For the following configuration:**

```
R1# conf t
R1(config)# username JR-ADMIN password cisco12345
R1(config)# username ADMIN secret cisco54321
R1(config)# line con 0
R1(config-line)# login local
R1(config-line)# end
R1#
R1# show run | include username
username JR-ADMIN password 7 06350632434158485664347
username ADMIN secret 5 $1$G3cQ5h2vsd5iz76WJuSJvtzz8IB
R1#
```

a. Explain the configuration code. (4 Marks)

b. Explain the difference between the _password_ and the _secret_ commands. (3 Marks)

c. Change the following code to enforce a minimum password length of 6. (3 Marks)

**Q3. In the following Configuration.**

```
R1#configure terminal
R1(config)# username ADMIN secret cisc54321
R1(config)# line vty 0 4
R1(config-line)# login local
R1(config)# exit
R1(config)# login block-for 120 attempts 5 within 60
R1(config)# ip access-list standard PERMIT-ADMIN
R1(config-std-nacl)# remark Permit only Administrative hosts
R1(config-std-nacl)# permit 192.168.10.10
R1(config-std-nacl)# permit 192.168.11.10
R1(config-std-nacl)# exit
R1(config)# login quiet-mode access-class PERMIT-ADMIN
R1(config)# login delay 10
R1(config)# login on-success log
R1(config)# login on-failure log
R1(config)# exit
```

a- Explain the configuration code. (4 Marks)

b- Change the above configuration to allow ip address 192.168.32.12 to access the router in the Quiet mode. (3 Marks)

c- In the above configuration, what will happen if the login delay is changed to 20 seconds? (3 Marks)

**Q4: Explain the following terms of IPS Signature Alarms:** (10 Marks)

a- Pattern-Based Detection   b-Anomaly-Based Detection   c- Policy-Based Detection

_Good Luck and Best Wishes_                                    _Dr. Ibrahim Elashry_