2023/2024

MODULE : NETWORKS 2
EXAM

Responsible of Module:
Dr MELLAL N.

Name:	Group:	Mark :

Exercise 1:

1.   What do we need to configure the host A to allow the communication with the mail server?

☐ IP address   ☐ subnet mask   ☐ default gateway   ☐ router name
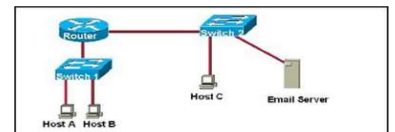
2.   You currently use the default mask for your IP network 192.168.1.0. You need to subnet your network so that you have 30 subnets, and 4 hosts per network. What subnet mask should you use?

☐ 255.255.255.224   ☐ 255.255.255.240   ☐ 255.255.255.248   ☐ 255.255.255.252

3.   The heart of the OSI model is the layer:

☐ Application   ☐ presentation   ☐ session   ☐ transport

4.   What type of application is the UDP protocol best suited to? (Choose two answers.)

☐ Applications can tolerate some data loss, but little or no delay.

☐ Applications that manage reliability themselves

☐ Applications require data flow control

☐ Applications require reorder of segments

☐ Applications that need reliable transmission

5.   DNS simplifies user access to the network by providing?

❑ Assignment of IP address, subnet mask, gateway and other values to a host device

❑ Resolution of hostnames to IP addresses so you don't have to remember an IP address

❑ Easy web site access

❑ Automatically downloading hostnames and IP address static tables for internal network devices.

6.   Which port enables the DHCP messaging from client to server?

☐source: UDP port 68, destination : UDP port 67   ☐source: UDP port 67, destination : UDP port 68

☐source: UDP port 68, destination : UDP port 67   ☐source: TCP port 67, destination : TCP port 68

7.   The expected response from a DHCPDISCOVER message is

☐ DHCPPACK   ☐DHCPOFFER   ☐DHCPREQUEST   ☐DHCPRELEASE

8.   Wireshark is an open source tool for

☐Profiling network traffic   ☐ Analyzing packets   ☐Streaming inspection   ☐All answers are correct

9.   The standard of WLANs is

☐IEEE 802.3   ☐IEEE 802.8   ☐IEEE 802.9   ☐IEEE 802.11

10. What is the role of a repeater?

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☐ Connect computers   ☐Boost the signal   ☐Perform routing   ☐All answers are incorrect

Exercise 2 :

Your organization's network IP address is 200.138.1.0. You have sub-netted your network with a subnet mask of 255.255.255.252. Complete the table below:
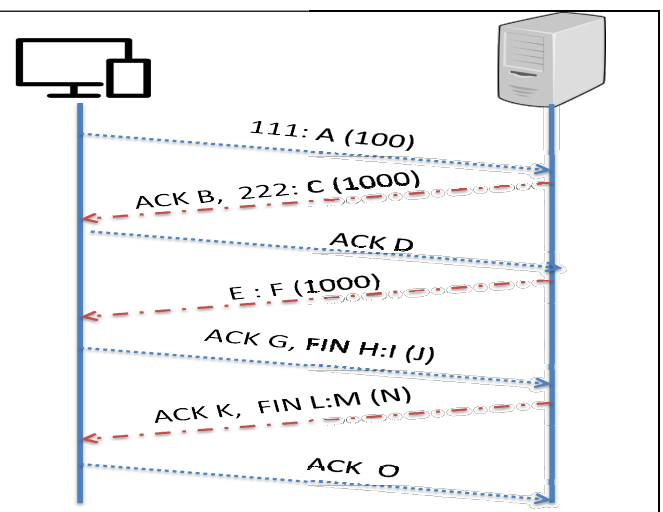
Class of the network address	C
Default mask	255.255.255.0
Number of subnets	64
Number of hosts in each subnet	2
For the 1st subnet	Subnet IP address: 200.138.1.0
	Broadcast address: 200.138.1.3
	Range of valid addresses of hosts: 200.138.1.1-200.138.1.2
IP address of the 2nd subnet	Subnet IP address: 200.138.1.4
	Broadcast address:200.138.1.7
	Range of valid addresses of hosts: 200.138.1.5-200.138.1.6
IP address of the 3rd subnet	Subnet IP address: 200.138.1.8
	Broadcast address: 200.138.1.11
	Range of valid addresses of hosts: 200.138.1.9 - 200.138.1.10

Exercise 3:

The diagram shows a communication between a client and an FTP server basing on the TCP Protocol. The client needs to download a pdf file.
According to the diagram,
1-   What means TCP?
2-   Deduct the client's request size.
3-   Deduct the size of the pdf file.
4-   Determine the values of A, B, C, D, E, F, G, H, I, J, K, L, M, N, O

111: A (100)

ACK B, 222: C (1000)

ACK D

E : F (1000)

ACK G, FIN H:I (J)

ACK K, FIN L:M (N)

ACK O

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