



**AIN SHAMS UNIVERSITY
FACULTY OF COMPUTER AND
INFORMATION SCIENCES**



Artificial Intelligence Program – Credit Hours Programs (CHP)

STUDENT PORTFOLIO – Academic Year 2023/2024

<i>UEL Module Code</i> CN5124	<i>UEL Module Name</i> AI for Safety Critical Systems	
<i>ASU Course Code</i> CIS243	<i>ASU Course Name</i> Artificial Intelligence	
	Semester Fall 2024	Date of Submission 12/5/2024

Student Name: Muhab Mohamed Fawzy Mohamed
Student ID (ASU): 2021170837
Student ID (UEL): 2497060





1- Quizzes

Saif Eldin Hatem Ahmed SW# 2021170814

Computer Networks

Quiz1

1-According to OSI reference model, which layer is responsible for hop to hop delivery and flow control?

A. Physical layer
B. Data link layer
C. Network layer
☒ D. Transport layer

2-Which of the following descriptions regarding the TTL field of the IP packet is correct?

A. The TTL defines how many packets the source can send.
B. The TTL defines the duration during which the source can send packets.
☒ C. The TTL value will decrement by 1 each time the packet is routed.
D. The TTL value will increment by 1 each time the packet is routed

3-A network administrator uses the ping command to check for the reachability between hosts in the network.

☒ A. True
B. False

4-The administrator wishes to change the clock timezone. Under which view should the administrator be in order to achieve this?

A. User-view
☒ B. System-view
C. Interface-view
D. Protocol-view

5-which of this is fastest in data transmitting?

A. Ethernet
B. Fast Ethernet
☒ C. GigabitEthernet

Given IP address 192.168.1.67 with subnet mask 255.255.255.192 /26

192	0	11000000	127	1
96	0		63	1
48	0		31	1
24	0	01000011	15	1
12	0		7	1
6	0		3	1
3	0		1	1
1	1		0	1
0	1		0	0

Scanned with CamScanner



1. Determine which class this address belongs to. *class C*
2. What is the subnet address for this ip address. *192.168.1.64*
3. What are the first and last ip addresses for this subnet?

First: 192.168.1.65

Last: 192.168.1.127 - 5

سيف الدين حاتم سيف الدين حاتم

SWE 3

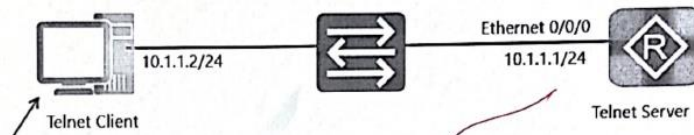
2021170814

Computer Networks

Quiz2

Version 5

1-In order for the client to be connected to the server ,which command should be written



- ☒ Telnet 10.1.1.1
- ☐ Telnet server 10.1.1.1
- ☐ Telnet Ethernet 0/0/0
- ☐ Telnet 10.1.1.2

2-Packets are forwarded to destinations based on the

- ☐ MAC table
- ☒ Routing table
- ☐ IP table
- ☐ Arp-cache

3- What is the preference for the RIP routing protocol

- ☐ 10
- ☐ 20
- ☐ 60
- ☒ 100

4- In static route load balancing the preference of the two routes are different

- ☐ True
- ☒ False

5-How many messages are required for the termination of TCP connection?

- ☐ 1
- ☐ 2
- ☐ 3
- ☒ 4



2- Midterm Exam

ID: 2021170826 SWF 2

95

SWF 2

Sait Eldin Hatem Ahmed

2021170814

SWF

AIN SHAMS UNIVERSITY
FACULTY OF COMPUTER & INFORMATION SCIENCES
I-CREDIT HOURS PROGRAMS

Fall 2023 Module Code: CN 5126 Module Name: Computer Networks and Operating System

Course Code: CIS 365/CSY 465 Maximum Marks: 100 Marks

Computer Networks – Midterm

Question (1): Choose the correct answer (50 marks)

- What is the name of the layer that runs user programs?
a) Application b) Transport c) Network d) Data link e) Physical
- is a collection of data packets waiting to be transmitted.
a) cache b) queue c) host d) end system
- All the following protocols run at the application layer **Except**.....
a) HTTP b) FTP c) SMTP d) TCP
- is a self-replicating infection by receiving or executing object.
a) Virus b) Spyware malware c) Worm d) Denial of Service
- Electromagnetic radio waves are guided physical-media
a) True b) False
- UDP is a reliable data transfer protocol.
a) True b) False
- Packet switching requires a dedicated connection between sender and receiver
a) True b) False
- ISP is abbreviation of
a) Internet Service Provider b) Internet Socket Provider c) Internet Security Provider
- In peer-to-peer network structure, each node is itself client and server.
a) True b) False
- LAN is abbreviation of
a) Local Array Network b) Local Area Network c) Local Area Net

Question (2): Solve the following problem (50 marks)

Consider a 100 Mbps link between A (sender) and B (receiver) with distance of 2100 km. The data propagates at a speed of 3×10^8 m/s. What is the time taken for the receiver to completely receive a packet with 1000 bytes from the sender?

$R = 100 \times 10^6$ bps
 $d = 2100 \times 10^3$ m
 $S = 3 \times 10^8$ m/s
 $L = 8000$ bits

$t_{(propagation)} = \frac{2100 \times 10^3}{3 \times 10^8} = 7 \times 10^{-5}$ s

$t_{(transmission)} = \frac{L}{R} = \frac{8000}{100 \times 10^6} = 8 \times 10^{-5}$ s

$t_{(full)} = t_{(p)} + t_{(T)} = 7 \times 10^{-5} + 8 \times 10^{-5} = 1.5 \times 10^{-4}$ s

Examiners: Associate Professor: Dr. Tamer Mostafa
Assistant Professor Dr. Dina Fawzy



3- Practical

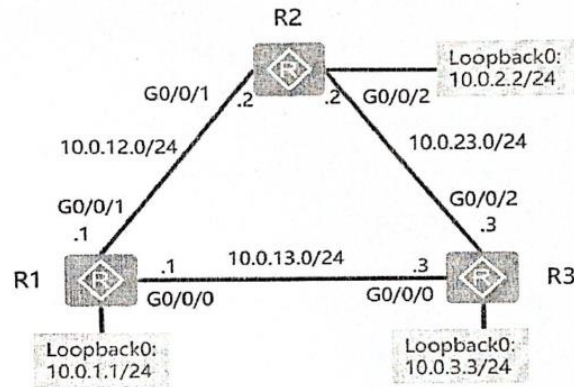
Saif Eldin Hatem Ahmed Mohamed

SWE

2021170814

Question 8

You are required to implement the following tasks:



- 1- Configure the device names. 10 marks
- 2- Perform basic system & IP address configuration. 20 marks & 15 marks for loopback interfaces.
- 3- Display a brief for R1 interfaces to check the configuration. 15 marks
- 4- Configure a static route from R3 to network:"10.0.12.0". 25 marks
- 5- Display the routing table for Router 3. 15 marks