

ACADEMIC YEAR 2023 – 2024

| Program | Term | Semester | Paper |
|------------------------|-----------------------------------|-------------------|----------------------|
| FOUNDATION | 2 | 1 | MIDTERM |
| MODULE NAME: | INFORMATION TECHNOLOGY-III | | |
| MODULE CODE: | FCOM003 | EXAM DATE: | 04/01/2024 |
| TEACHER'S NAME: | Ahlam Al Balushi | DURATION: | 1 hr 30 mins. |

| Questions to be answered on: | Allowed requirements | Number of pages |
|------------------------------|----------------------|-----------------|
| Moodle | Computer | 5 |

Points of Attention:

- For each question, the maximum earned points are mentioned between brackets at the end of each question.
- Make sure your answers are written to the point.
- All answers must be written **in English**.
- When finished, save your answer on Moodle or hit submit button.
- Cheating /copying is not allowed and will result in failing the exam.

| FINAL MARKS | |
|----------------------|-----------|
| STUDENT NAME: | |
| STUDENT ID: | |
| CLASS: | 20 |

Number of answer scripts:

Invigilator:

Student's signature:

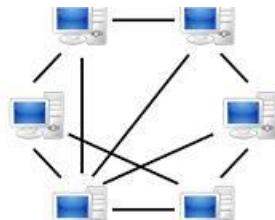
Time of receipt:

Question 1

[10 Marks]

Choose the correct answer.

1. What is the best characteristic of the figure below in a computer network?



(Pickle & Christensson, 2023)

- a. Each computer acts as a server or a client.
- b. It has a centralized server that manages all resources and services.
- c. Each computer can transfer data to others over the internet.
- d. It can be used to cover a large geographic area.

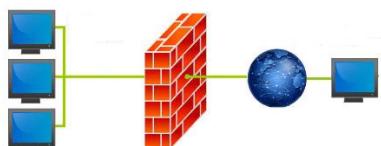
2. 192.168.0.1 is an example of _____.

- a. Domain Name System
- b. IP address
- c. Transition Control Protocol
- d. Digital Network Security

3. Which networking component is responsible for determining the best path for data to travel between devices on different networks?

- a. Modem
- b. Switch
- c. Router
- d. Hub

4. What is the primary function of the figure below in a computer network?



(Andrea, 2020)

- a. Assigning IP addresses
- b. Connecting devices within a LAN
- c. Translating domain names to IP addresses
- d. Filtering and controlling network traffic

5. Which of these is an example of an organisational website?

- a. mohe.gov
- b. olx.com
- c. harvard.edu
- d. UNO.org

6. Ahmed, an employee, receives an email with an attachment that appears to be from a trusted source. Without verifying the sender, Ahmed opens the attachment. After two weeks, he notices that his computer has become very slow, and sometimes the screen freezes when attempting to save a document. What has happened to the computer?

- a. The computer is infected by worms, which slows down its performance.
- b. The programs need updating to enhance computer performance.
- c. The hard disk is almost full, and there is a need to delete some files.
- d. The operating system is not activated; therefore, the performance is slow.

7. In networking, the main purpose of _____ is converting domain names into IP addresses.

- a. DNS
- b. HTML
- c. HTTPS
- d. IPS

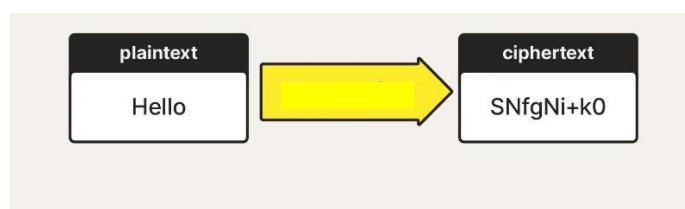
8. A large company operates across multiple countries, with regional offices interconnected to facilitate seamless communication. What type of network has been implemented for this company?

- a. Peer-to-peer
- b. LAN
- c. WLAN
- d. WAN

9. An institution used a network device to connect all computers with a server. However, the company is facing an issue with sending emails or data to all computers connected to this device. What is this device?

- a. Hub
- b. Modem
- c. Switch
- d. Router

10. The process illustrated below is called _____.



(Stouffer, 2023)

- a. Decryption
- b. Encryption
- c. Reduction
- d. Reproduction

Question 2

[5 Marks]

Fill in the gaps with the correct terms from the given box.

| | | | |
|-----------|--------|-------------|-----------|
| web pages | HTTPS | domain type | hyperlink |
| URL | markup | domain name | ISP |

- HTML is a standard _____ language used to create and design on the World Wide Web.
- _____ is a reference or address used to access resources on the Internet. It typically includes the protocol, the _____, and the path to the specific resource.
- A _____ is a reference or navigation element in a document that, when clicked, directs the user to another _____.
- A corporation that provides internet access to business and personal customers is called _____.
- _____ is a secure protocol that is used to transfer web files, such as banking files, over the Internet.

Question 3

[5 Marks]

Match the definition with the terms provided.

| No. | Definition | | Terms |
|-----|---|--|-----------------------|
| 1 | A process used to transform encrypted data back into its original, readable form. | | a. Commercial Website |
| 2 | A type of cyber-attack where attackers attempt to trick individuals into sharing sensitive information, such as usernames, passwords, or credit card details. | | b. Spyware |
| 3 | Software that secretly gathers information about a user's activities without their knowledge, typically for malicious purposes. | | c. Decryption |
| 4 | A website that requires users to create an account and log in to access its content or services. | | d. Phishing |
| 5 | A website operated by a business or company that aims to sell products or services to customers. | | e. Membership Website |

MLO & Bloom's Level of Complexity

| Q # | MLO Addressed | Complexity Level | Mark | Remark |
|-----|---------------|------------------|------|--------|
| 1 | 1, 2, 3,4 | Understanding | 1 | |
| 2 | 2 | Understanding | 1 | |
| 3 | 2, 3, 4 | Understanding | 1 | |

References:

Andrea, H. (2020) Network based firewall vs host based firewall-discussion & comparison, Networks Training. Available at: <https://www.networkstraining.com/network-based-firewall-vs-host-based-firewall-discussion-and-comparison/> (Accessed: 16 December 2023).

Morrison, C., Pusins, D. and Ruffolo, L. (2015). *Computer Literacy Basics*: A comprehensive Guide to IC3. 5th edn. Standford: Cengage Learning.

Pickle, B. and Christensson, P. (2023). P2P, Definition - What is a peer-to-peer network? Available at: <https://techterms.com/definition/p2p> (Accessed: 16 December 2023).

Stouffer, C. (2023) *What is encryption? how it works + types of encryption* – Norton, United States. Available at: <https://us.norton.com/blog/privacy/what-is-encryption> (Accessed: 19 December 2023).