University of M'sila
Faculty of MI
Department of Computer Science

TD No. 01

Level: 3rd year Bachelor's degree

Course: Computer Security

Exercise 01: QCM

1. Which of the following best describes the CIA triad?
   a. Confidentiality, Integrity, Availability
   b. Control, Isolation, Authentication
   c. Confidentiality, Identification, Authorization
   d. Consistency, Integrity, Accountability
2. Authentication is the process of :
   a. Determining the actions of the user
   b. Verifying the identity of a user
   c. Encrypting data before transmission
   d. Monitoring system activity
3. Which of the following attacks target availability?
   a. Identity theft
   b. Denial of service
   c. Journal modification
   d. Bombardment and saturation of the network
4. Which statement is correct?
   a. Security failures are always accidental
   b. Safety considers malicious behavior
   c. Security focuses on intentional attacks
   d. Safety and security are identical concepts
5. Which statement is correct?:
   a. A threat is the same as a risk
   b. Risk exists only if an attack has occurred
   c. A threat exploits a vulnerability to create risk
   d. Risk depends only on system vulnerabilities
6. The primary goal of physical security is to:
   a. Protect data confidentiality
   b. Prevent unauthorized physical access and damage
   c. Detect malware infections
   d. Ensure software correctness
7. Information integrity means that data:
   a. Is encrypted
   b. Is always available
   c. Has not been altered without authorization
   d. Is stored securely
8. Which of the following best defines an active attack?
   a. Monitoring network traffic
   b. Reading sensitive files
   c. Altering data or system behavior
   d. Collecting metadata
9. Which is an example of an operational security control?
   a. Firewalls
   b. Encryption algorithms
   c. Change management procedures
   d. Secure boot
10. Which is an example of a passive attack?
    a. A. Denial-of-service attack
    b. Man-in-the-middle altering messages
    c. Eavesdropping on network traffic
    d. SQL injection
11. Which of the following is an example of a logical security failure?
    a. Server room fire
    b. Hard disk theft
    c. Weak password policy
    d. Power outage
12. Which dimension is not part of the IT security architecture?
    a. Technical dimension
    b. Monetary dimension
    c. Organizational dimension
    d. Legal dimension

Exercise 02:

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1. Explain the difference between identification and authentication.
2. What is the relationship between: authentication, integrity, and non-repudiation?
3. Give examples of attackers in the real world.
4. Why are hackers interested in corporate information systems?
5. What is the difference between computer security and cybersecurity?

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