

Indian Institute of Technology Kharagpur



Course Name: ETHICAL HACKING

Assignment- Week 8

TYPE OF QUESTION: MCQ/MSQ/SA

Number of questions: 10 Total mark: $10 \times 1 = 10$

QUESTION 1:

Which of the following is/are examples of steganography?

- a. Hiding some text information within an image file.
- b. Hiding some text information within an audio clip.
- c. Hiding some secret information within an executable file.
- d. Encrypting an image file so that only the intended recipient can view it.

Correct Answer: a, b, c

Detail Solution: Steganography refers to a set of methods where some information is hidden within some other file (like image, audio, video, executable, etc.). It does not involve encryption for secure access.

The correct options are (a), (b) and (c).

QUESTION 2:

Consider a gray-level image of size 100 x 100, where each pixel is stored in 8-bits (representing a gray scale). The number of bytes of information can be hidden in the image by using LSB steganography technique is ______.

Correct Answer: 1240 to 1260

Detail Solution: Each pixel consists of 8 bits or 1 bytes, and hence 1 bits of information can be stored in each pixel. The number of bytes of hidden information that can be stored in the whole image will be:

 $100 \times 100 / 8 = 1250$ bytes.

QUESTION 3:

Which of the following correspond to behavioral biometrics?

a. Biometrics that relate to human behavior.



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- b. Biometrics that relate to human body.
- c. Biometrics that rely on the use of a powerful computer system.
- d. None of these

Correct Answer: a

Detail Solution: Behavioral biometrics refers to biometrics that relate to human behavior, like signature (hand and finger movement) and Gait (walking style). However, fingerprint, Iris scan and Retina scan are properties of the human body and not dependent on the behavior. It does not rely on computing power.

Hence, the correct option is (a).

QUESTION 4:

Which of the following is/are example(s) of physiological feature?

- a. Retina
- b. Fingerprint
- c. Signature
- d. Typing speed
- e. None of these

Correct Answer: a, b

Detail Solution: Physical biometrics refers to physiological features on the human body such as fingerprint, retina scan whereas behavioral features are use in behavioral biometrics such as keystroke pattern, typing speed, mouse movement, signature styles etc.

The correct options are (a) and (b).

QUESTION 5:

Which of the following attacks refer to the situation where an attacker gains entry into the victim machine (or spoofs the IP address) and then sends a ping request to a broadcast address?

- a. SYN flooding attack.
- b. Smurf denial-of-service attack.
- c. DNS spoofing attack.
- d. None of these.



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Correct Answer: b

Detail Solution: In the Smurf DoS attack, the victim gains entry into the victim machine (or spoofs the IP address) and then sends a ping request to a broadcast address. A large number of ping response packets are received, which can overload the victim. The correct option is (b).

QUESTION 6:

Which of the following is **not an example** of denial-of-service attacks?

- a. SYN flooding attack.
- b. Smurf attack.
- c. Ping-of-death.
- d. None of these.

Correct Answer: d

Detail Solution: All of the given attacks are an example of denial-of-service attack The correct option is (d).

QUESTION 7:

Which of the following is true for iterative name resolution?

- a. A host may have to send multiple DNS requests to several DNS servers.
- b. A host sends a single DNS request to its next higher-level DNS server.
- c. Name resolution happens recursively within the host itself.
- d. None of these.

Correct Answer: a

Detail Solution: The DNS server receives a DNS request from a host containing a domain name, and it returns the corresponding IP address. In iterative name resolution, in response to a DNS request, the DNS server sends back a response specifying the next DNS server to send the query. In this way, the host may have to send a number of DNS requests before it gets resolved. In recursive name resolution, the host sends a DNS request to the next higher level DNS server. The DNS server in turn recursively forwards the request to its next higher-level DNS server, and so on, until the request gets resolved. The final reply gets back to the host. Here, the host sends a single DNS request.



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Thus, option (a) is true.

QUESTION 8:

Which of the following statement(s) is/are false for HTTP Flood attack?

- a. It is exclusively a type of Distributed-Denial-of-Service (DDoS) attack.
- b. It overwhelms a target server using oversized ping packets.
- c. It overwhelms a target server with HTTP request.
- d. None of these.

Correct Answer: b

Detail Solution: HTTP Flood attack is a type DDoS attack which is designed to overwhelm the target server with HTTP requests. Once the target is saturated with HTTP requests, it does not respond to HTTP request from legitimate users.

The correct option is (b).

QUESTION 9:

What is the full form of PGP?

- a. Packet Group Protocol
- b. Port Group Protocol
- c. Pretty Good Privacy
- d. None of these.

Correct Answer: c

Detail Solution: PGP stands for Pretty Good Privacy.

The correct option is (c).

QUESTION 10:

Which of the following services are provided by PGP?

- a. It provides authentication.
- b. It provides confidentiality.
- c. It ensures availability.



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d. None of these.

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Detail Solution: PGP is mostly used for email conversations, it provides security in email transmission by providing authentication and confidentiality, PGP also offers email compatibility.

The correct options are (a) and (b).

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