



Course
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Calendar

Cisco Cybersecurity Essentials

Started on	Tuesday, 24 October 2023, 9:15 PM
State	Finished
Completed on	Tuesday, 24 October 2023, 9:34 PM
Time taken	19 mins 41 secs
Marks	40.00/40.00
Grade	100.00 out of 100.00

Question 1

Correct

Mark 2.00 out of 2.00

What term is used to describe concealing data in another file such as a graphic, audio, or other text file?

Select one:

- ☐ hiding
- ☒ steganography
- ☐ obfuscation
- ☐ masking



Refer to curriculum topic: 4.3.2

Steganography conceals data in a file such as a graphic, audio, or other text file and is used to prevent extra attention to the encrypted data because the data is not easily viewed.

The correct answer is: steganography

Question 2

Correct

Mark 2.00 out of 2.00

What term is used to describe the technology that replaces sensitive information with a nonsensitive version?

Select one:

- ☐ retracting
- ☒ masking
- ☐ hiding
- ☐ blanking
- ☐ whiteout



Refer to curriculum topic: 4.3.1

Data masking replaces sensitive information with nonsensitive information. After replacement, the nonsensitive version looks and acts like the original.

The correct answer is: masking

Question 3

Correct

Mark 2.00 out of 2.00

What encryption algorithm uses one key to encrypt data and a different key to decrypt data?

Select one:

- ☐ one-time pad
- ☐ transposition
- ☐ symmetric
- ☒ asymmetric



Refer to curriculum topic: 4.1.1

Asymmetric encryption uses one key to encrypt data and a different key to decrypt data.

The correct answer is: asymmetric

Question 4

Correct

Mark 2.00 out of 2.00

Which type of cipher is able to encrypt a fixed-length block of plaintext into a 128-bit block of ciphertext at any one time?

Select one:

- ☐ stream
- ☒ block
- ☐ hash
- ☐ transform
- ☐ symmetric



Refer to curriculum topic: 4.1.2

Block ciphers transform a fixed-length block of plaintext into a block of ciphertext. To decrypt the ciphertext, the same secret key to encrypt is used in reverse.

The correct answer is: block

Question 5

Correct

Mark 2.00 out of 2.00

What encryption algorithm uses the same pre-shared key to encrypt and decrypt data?

Select one:

- ☐ hash
- ☐ asymmetric
- ☐ one-time pad
- ☒ symmetric



Refer to curriculum topic: 4.1.1

Symmetric encryption algorithms use the same pre-shared key to encrypt and decrypt data.

The correct answer is: symmetric

Question 6

Correct

Mark 2.00 out of 2.00

What is the term used to describe the science of making and breaking secret codes?

Select one:

- ☐ spoofing
- ☒ cryptology
- ☐ jamming
- ☐ impersonation
- ☐ factorization



Refer to curriculum topic: 4.1.1

Cryptology is the science of making and breaking codes to make sure that cyber criminals cannot easily compromise protected information.

The correct answer is: cryptology

Question 7

Correct

Mark 2.00 out of 2.00

Which three devices represent examples of physical access controls? (Choose three.)

Select one or more:

- ☐ routers
- ☐ firewalls
- ☐ servers
- ☒ video cameras
- ☒ swipe cards
- ☒ locks



Refer to curriculum topic: 4.2.1

Physical access controls include but are not limited to the following:

- Guards
- Fences
- Motion detectors
- Laptop locks
- Locked doors
- Swipe cards
- Guard dogs
- Video cameras
- Mantraps
- Alarms

The correct answers are: locks, swipe cards, video cameras

Question 8

Correct

Mark 2.00 out of 2.00

A warning banner that lists the negative outcomes of breaking company policy is displayed each time a computer user logs in to the machine. What type of access control is implemented?

Select one:

- ☐ masking
- ☒ deterrent
- ☐ detective
- ☐ preventive



Refer to curriculum topic: 4.2.7

Deterrents are implemented to discourage or mitigate an action or the behavior of a malicious person.

The correct answer is: deterrent

Question 9

Correct

Mark 2.00 out of 2.00

Which two terms are used to describe cipher keys? (Choose two.)

Select one or more:

- keylogging
- ✓ key space
- ✓ key length
- key randomness



Refer to curriculum topic: 4.1.4

The two terms used to describe keys are the following:

- **Key length** - Also called the key , this is the measure in bits.
- **Keyspace** - This is the number of possibilities that a specific key length can generate.

As key length increase, the keyspace increases exponentially.

The correct answers are: key length, key space

Question 10

Correct

Mark 2.00 out of 2.00

Which three protocols use asymmetric key algorithms? (Choose three.)

Select one or more:

☒ Secure Shell (SSH)

Telnet

☒ Secure Sockets Layer (SSL)

Advanced Encryption Standard (AES)

☒ Pretty Good Privacy (PGP)

Secure File Transfer Protocol (SFTP)



Refer to curriculum topic: 4.1.4

Four protocols use asymmetric key algorithms:

- Internet Key Exchange (IKE)
- Secure Socket Layer (SSL)
- Secure Shell (SSH)
- Pretty Good Privacy (PGP)

The correct answers are: Pretty Good Privacy (PGP), Secure Sockets Layer (SSL), Secure Shell (SSH)

Question 11

Correct

Mark 2.00 out of 2.00

What cryptographic algorithm is used by the NSA and includes the use of elliptical curves for digital signature generation and key exchange?

Select one:

☒ ECC

☐ IDEA

☐ RSA

☐ AES

☐ El-Gamal



Refer to curriculum topic: 4.1.3

Elliptic curve cryptography (ECC) uses elliptic curves as part of the algorithm for digital signature generation and key exchange.

The correct answer is: ECC

Question 12

Correct

Mark 2.00 out of 2.00

Which 128-bit block cipher encryption algorithm does the US government use to protect classified information?

Select one:

- ☐ Caesar
- ☐ 3DES
- ☐ Skipjack
- ☒ AES
- ☐ Vignere



Refer to curriculum topic: 4.1.2

The Advanced Encryption Standard (AES) is used to protect classified information by the U.S. government and is a strong algorithm that uses longer key lengths.

The correct answer is: AES

Question 13

Correct

Mark 2.00 out of 2.00

Match the type of multifactor authentication with the description.

- | | | |
|--------------------|---|---|
| a fingerprint scan | <input type="text" value="something you are"/> | ✓ |
| a security key fob | <input type="text" value="something you have"/> | ✓ |
| a password | <input type="text" value="something you know"/> | ✓ |

Refer to curriculum topic: 4.2.4

Multi-factor authentication uses a minimum of two methods of verification and can include the following:

- Something you have
- Something you know
- Something you are

The correct answer is: a fingerprint scan → something you are, a security key fob → something you have, a password → something you know

Question 14

Correct

Mark 2.00 out of 2.00

What is the name of the method in which letters are rearranged to create the ciphertext?

Select one:

- ☒ transposition
- ☐ one-time pad
- ☐ substitution
- ☐ enigma



Refer to curriculum topic: 4.1.1

Ciphertext can be created by using the following:

- Transposition – letters are rearranged
- Substitution – letters are replaced
- One-time pad – plaintext combined with a secret key creates a new character, which then combines with the plaintext to produce ciphertext

The correct answer is: transposition

Question 15

Correct

Mark 2.00 out of 2.00

Which asymmetric algorithm provides an electronic key exchange method to share the secret key?

Select one:

- ☐ RSA
- ☒ Diffie-Hellman
- ☐ hashing
- ☐ DES
- ☐ WEP



Refer to curriculum topic: 4.1.3

Diffie-Hellman provides an electronic exchange method to share a secret key and is used by multiple secure protocols.

The correct answer is: Diffie-Hellman

Question 16

Correct

Mark 2.00 out of 2.00

Which three processes are examples of logical access controls? (Choose three.)

Select one or more:

- ☒ firewalls to monitor traffic
- ☒ intrusion detection system (IDS) to watch for suspicious network activity
- ☐ swipe cards to allow access to a restricted area
- ☐ fences to protect the perimeter of a building
- ☒ biometrics to validate physical characteristics
- ☐ guards to monitor security screens



Refer to curriculum topic: 4.2.1

Logical access controls includes but is not limited to the following:

- Encryption
- Smart cards
- Passwords
- Biometrics
- Access Control Lists (ACLs)
- Protocols
- Firewalls
- Intrusion Detection Systems (IDS)

The correct answers are: firewalls to monitor traffic, biometrics to validate physical characteristics, intrusion detection system (IDS) to watch for suspicious network activity

Question 17

Correct

Mark 2.00 out of 2.00

What type of cipher encrypts plaintext one byte or one bit at a time?

Select one:

- ☐ elliptical
- ☒ stream
- ☐ block
- ☐ enigma
- ☐ hash



Refer to curriculum topic: 4.1.2

Stream ciphers encrypt plaintext one byte or one bit at a time, and can be much faster than block ciphers.

The correct answer is: stream

Question 18

Correct

Mark 2.00 out of 2.00

What are three examples of administrative access controls? (Choose three.)

Select one or more:

- encryption
- ✓ policies and procedures ✓
- ✓ hiring practices ✓
- intrusion detection system (IDS)
- guard dogs
- ✓ background checks ✓

Refer to curriculum topic: 4.2.1

Administrative access controls are defined by organizations to implement and enforce all aspects of controlling unauthorized access and include the following:

- Policies
- Procedures
- Hiring practices
- Background checks
- Data classification
- Security training
- Reviews

The correct answers are: policies and procedures, background checks, hiring practices

Question 19

Correct

Mark 2.00 out of 2.00

Match the description with the correct term. (Not all targets are used.)

obfuscation	making a message confusing so it is harder to understand	✓
social steganography	creating a message that says one thing but means something else to a specific audience	✓
steganalysis	discovering that hidden information exists within a graphic file	✓
steganography	hiding data within an audio file	✓

Refer to curriculum topic: 4.3.2

The correct answer is: obfuscation → making a message confusing so it is harder to understand, social steganography → creating a message that says one thing but means something else to a specific audience, steganalysis → discovering that hidden information exists within a graphic file, steganography → hiding data within an audio file

Question **20**

Correct

Mark 2.00 out of 2.00

Which term describes the technology that protects software from unauthorized access or modification?

Select one:

- ☐ access control
- ☒ watermarking
- ☐ copyright
- ☐ trademark



Refer to curriculum topic: 4.3.3

Software watermarking inserts a secret message into the program as proof of ownership and protects software from unauthorized access or modification.

The correct answer is: watermarking

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