Congratulations! You passed!
TO PASS 80% or higher

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GRADE
100%

Symmetric Encryption

TOTAL POINTS 5

1. What are the components that make up a cryptosystem? Check all that apply. **1 / 1 point**

- [ ] Transmission algorithms
- [x] Key generation algorithms

Correct
Great job! A cryptosystem is a collection of algorithms needed to operate an encryption service. This involves generating encryption keys, as well as encryption and decryption operations.

- [x] Encryption algorithms

Correct
Great job! A cryptosystem is a collection of algorithms needed to operate an encryption service. This involves generating encryption keys, as well as encryption and decryption operations.

- [x] Decryption algorithms

Correct
Great job! A cryptosystem is a collection of algorithms needed to operate an encryption service. This involves generating encryption keys, as well as encryption and decryption operations.

2. What is steganography? **1 / 1 point**

- ( ) The study of stegosauruses
- ( ) The practice of encoding messages
- ( ) The study of languages
- (•) The practice of hiding messages

Correct
Yep! Steganography involves hiding messages, but not encoding them.

3. What makes an encryption algorithm symmetric? **1 / 1 point**

- ( ) Very large key sizes
- ( ) Different keys used for encryption and decryption
- (•) The same keys used for encryption and decryption
- ( ) High speed

Correct
Awesome! The symmetry of a symmetric algorithm refers to one key being used for both encryption and decryption.

4. What's the difference between a stream cipher and a block cipher? **1 / 1 point**

- ( ) There is no difference.
- (•) Stream ciphers encrypt data as a continuous stream, while block ciphers operate on chunks of data.
- ( ) Block ciphers are only used for block device encryption.
- ( ) Stream ciphers can't save encrypted data to disk.

Correct
You got it! A stream cipher takes data in as a continuous stream, and outputs the ciphertext as a continuous stream, too. A block cipher encrypts the data in chunks, or blocks.

5. True or false: The smaller the encryption key is, the more secure the encrypted data is. **1 / 1 point**

- ( ) TRUE
- (•) FALSE

Correct
Nice work! The reverse is true. The larger the key, the more secure the encrypted data will be.