



Cryptography
17 Questions

NAME : _____

CLASS : _____

DATE : _____

1. Why do computers encrypt messages?

- | | | | |
|-------------------------|--|-------------------------|--|
| <input type="radio"/> A | There is no reason | <input type="radio"/> B | It is how computers need to send the message |
| <input type="radio"/> C | To prevent them from being read by the wrong person. | <input type="radio"/> D | To make it harder for the person who receives the message to read it |

2. When solving a code, we need a letter or a word to help us get started, what is this often referred to as?

- | | | | |
|-------------------------|---------|-------------------------|--------|
| <input type="radio"/> A | Key | <input type="radio"/> B | Answer |
| <input type="radio"/> C | Support | <input type="radio"/> D | Help |

3. What machine was used during WWII to encrypt and decrypt German messages?

- | | | | |
|-------------------------|---------|-------------------------|--------|
| <input type="radio"/> A | Puzzler | <input type="radio"/> B | Atbash |
| <input type="radio"/> C | Secret | <input type="radio"/> D | Enigma |

4. What kind of code was the Enigma Code?

- | | | | |
|-------------------------|----------------------|-------------------------|---------------------|
| <input type="radio"/> A | Caesar Cipher | <input type="radio"/> B | Binary code |
| <input type="radio"/> C | Transposition Cipher | <input type="radio"/> D | Substitution Cipher |

5. What is plaintext?

- | | | | |
|-------------------------|---|-------------------------|---|
| <input type="radio"/> A | The original message | <input type="radio"/> B | The information used in the cipher, known only to sender/receiver |
| <input type="radio"/> C | An algorithm for transforming plaintext to ciphertext | <input type="radio"/> D | A coded message |

6. What is ciphertext?

- | | | | |
|----------------------------|--|----------------------------|--|
| <input type="checkbox"/> A | Converting plaintext to ciphertext | <input type="checkbox"/> B | A coded message |
| <input type="checkbox"/> C | The study of encryption principles/methods | <input type="checkbox"/> D | The field of both cryptography and cryptanalysis |

7. What is the definition of confidentiality?

- | | | | |
|----------------------------|---|----------------------------|---|
| <input type="checkbox"/> A | Ensure message is not altered while in transit between communicating partners | <input type="checkbox"/> B | Ensure message remains secret during transmission between parties |
| <input type="checkbox"/> C | Proves that nobody but on sender could have sent a particular message | <input type="checkbox"/> D | Verifies sender is who she says she is |

8. What is the definition of integrity?

- | | | | |
|----------------------------|---|----------------------------|---|
| <input type="checkbox"/> A | Ensure message is not altered while in transit between communicating partners | <input type="checkbox"/> B | Ensure message remains secret during transmission between parties |
| <input type="checkbox"/> C | Verifies sender is who she says she is | <input type="checkbox"/> D | Proves that nobody but on sender could have sent a particular message |

9. Authentication

- | | | | |
|----------------------------|---|----------------------------|---|
| <input type="checkbox"/> A | Ensure message remains secret during transmission between parties | <input type="checkbox"/> B | Ensure message is not altered while in transit between communicating partners |
| <input type="checkbox"/> C | Proves that nobody but on sender could have sent a particular message | <input type="checkbox"/> D | Verifies sender is who she says she is |

10. What is encryption?

- | | | | |
|----------------------------|--|----------------------------|---|
| <input type="checkbox"/> A | A secret or disguised way of writing; a code. | <input type="checkbox"/> B | When you put data / text into code making it difficult to read or understand. |
| <input type="checkbox"/> C | What is put in, taken in, or operated on by any process or system. | <input type="checkbox"/> D | A formal <i>language</i> designed to communicate instructions to a machine |

11. A(n) _____ algorithm transforms cipher text to plain text.

☐ A

Decryption

☐ B

Encryption

12. Encrypt the word **ALPHABET** using a Caesar cipher with a shift of 3

☐ A

DVSDULQV

☐ B

DORQHBHV

☐ C

DOSKDEHW

☐ D

DOOFOHDU

13. A method for determining a solution to a problem by sequentially testing all possible solutions.

☐ A

Cipher

☐ B

Brute force

☐ C

Paired keys

☐ D

Relative frequency

14.

A	B	C	J	K	L
D	E	F	M	N	O
G	H	I	P	Q	R
S			W		
T	X	U	X	Y	
V			Z		

This is an example of what type of cipher?

☐ A

Enigma cipher

☐ B

Stream cipher

☐ C

Atbash cipher

☐ D

Pigpen cipher

15. Before computers why were messages usually encrypted?

☐ A

So in war Commanders/leaders could communicate safely with their troops

☐ B

To share messages with people who were clever enough to solve them

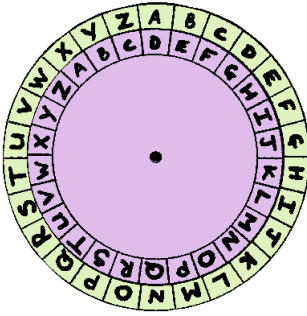
☐ C

They weren't encrypted before computers

☐ D

All of these reasons

16.



What is the problem with the following plain text to encrypt with a Caesar Cipher?

Is your birthday 9/30/1998?

☐ A

It would be relatively easy to decipher after encryption

☐ B

All of the above

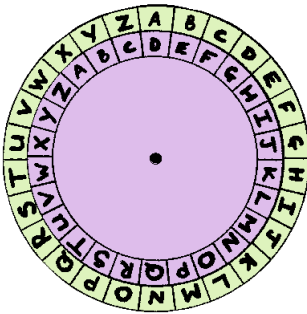
☐ C

Symbols cannot be encrypted

☐ D

Numbers cannot be encrypted

17.



What is the algorithm of Caesar's cipher?

☐ A

Each letter is replaced with a letter a certain number of steps down the alphabet

☐ B

Each letter is replaced with a particular symbol

☐ C

Each letter is replaced with a particular number from 0 to 26, and numbers are replaced with letters.