



Classic cryptography

Self-assessment test

Select the correct answer.

1. What are the pair of basic techniques applied in classic ciphers?
 - Inversion and substitution.
 - Substitution and permutation.**
 - Dispersion and compression.
 - Compression and expansion.

2. Complete the sentence with the right words:
“ _____ is a _____ cipher because the result of encrypting _____ characters is always the same”
 - Playfair, monoalphabetic, two.**
 - Playfair, polygraphic, two.
 - Vigenère, monoalphabetic, two or more.
 - Vigenère, polygraphic, two.

3. A monoalphabetic cipher...
 - It is the one that just alters the order of characters in the cleartext.
 - It always replaces each character (for instance, “a”) by other (for instance, “d”).
 - It can operate with one or several characters in each operation.**
 - It is implemented in the Enigma machine.

4. The scytale...
 - It is a cipher that works with substitutions.
 - The key is the length of the leather strip.
 - The key corresponds to the diameter of the cylinder.**
 - The message is written along the leather strip and it is read by rows.

5. Choose the right sentence regarding Hill cipher:

- **The decryption process requires the calculus of the modular inverse of the determinant of a matrix.**
- It is based on character transposition.
- The message is encrypted character by character.
- It is known as the perfect cipher, that is, mathematically unbreakable, though it is impractical in a real setting.