



Semester : VI

Subject : CSS

Academic Year: 2023 - 2024

SYMMETRIC CIPHER MODEL:

Symmetric encryption also referred to as conventional encryption is of 2 types or we can say it has two techniques.

- * Substitution Techniques.
 - * Transposition Techniques.
- } 2 basic building blocks of all the encryption techniques.

Substitution Techniques:

It is the one in which the letters of the plain text are replaced by other letters or by numbers or symbols.

eg: Name \rightarrow I W P X

Transposition Techniques:

It is also known as Transposition ciphers.

There is no replacement or substitution.

It performs some sort of permutations on the plaintext letters. (ie) it reorders the symbols.
(ie) rearrangement of the letters of the plain text.

(eg) NAME \rightarrow EAMN (or) AENM (or) MNEA etc.

$4! = 4 \times 3 \times 2 \times 1 = 24$ possibilities.



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Types of Substitution Ciphers:

- * Caesar Cipher
- * Monoalphabetic Cipher
- * Polyalphabetic Ciphers - Vigenere Cipher.
- * Playfair Cipher
- * Hill Cipher.

Types of Transposition Ciphers:

- * Keyed transposition Ciphers
- * Keyless Transposition Ciphers.