

### III Transposition Technique :-

- ① Rail Fence
- ② Row column Transposition

#### \* ① Row column Transposition

- ① A more complex scheme
- ② create Rectangle
- ③ Write : Row by Row
- ④ Read : column by column
- ⑤ key : order of the column.

Ex.,

Encrypt the message

"kill corona virus at twelve am tomorrow".

key :- 4312567

Plaintext :-

"kill corona virus at twelve am tomorrow".

4	3	1	2	5	6	7
K	i	L	L	C	O	r
O	n	a	v	i	r	u
S	a	t	t	W	e	l
v	e	a	m	t	O	m
D	r	r	O	W	(y)	(z)

\* sender and receiver beside the row & col.



ciphertext :- Latartvtmoinaerkosvociwtw  
twosceoyrilmz.



Ex ① A message "COMPUTERNETWORK" encrypted using Columnar transposition cipher with a key "LAYER". The encrypted message is ???

key  $\Rightarrow$  LAYER  $\Rightarrow$  3 1 5 2 4  
 $\downarrow \downarrow \downarrow \downarrow \downarrow$   
 3 1 5 2 4  
 C O M P U  
 T E R N E  
 T W O R K

$\Rightarrow$  cipher text :- OEWPU RCTTUEK MRO.

Ex ② Columnar cipher :-

P = ATTACK TODAY

K = 3 4 2 1

row transposition  
 Columnar transposition  
 (Rectangle cipher)

3 4 2 1

A T T A

C K T O

D A Y  $\otimes$  ← filler character

Encryption  
 Decryption.

cipher text : AOXTTYACDTKA

Decryption

3 4 2 1

A T T A

C K T O

D A Y x

P = ATTACK TODAY