



## Security of Computer and Networks

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**Example 1/ Encrypt the following message: "Why, don't you?" using the keyword: "keyword"**

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

**Wh yd on ty ou**

**YJ EA ES VK EZ**

Then Ciphertextet is : YJEAESVKEZ.

**Example 2/Decrypt the message (PH GK CN HR FA NY) using playfair cipher with the key=encrypt.**

e	n	c	r	y
p	t	a	b	d
f	g	h	i/j	k
l	m	o	q	s
u	v	w	x	z

Solution: convert the key to 5x5 matrix

PH→ af

GK→ fi

CN→ ne

RH→ ci

AF→ ph

NY→ er then the plaintext is **affine cipher**



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**Example 3/** encrypt the following message Plaintext: **"SHE WENT TO THE STORE"**

using playfair cipher? Key is **"PROBLEMS"**?

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

Plaintext: **"SHE WENT TO THE STORE"**

Plaintext : SH EW EN TX TO TH ES TO RE

Ciphertext: AG MV MK QY QB YT MA QB PM

**Example 4/** Deccrypt the following message encrypt with playfair cipher? Key is **"PROBLEMS"**?

Ciphertext: **"AGMVMKQYQBYTMAQBPM"**

Answer/

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

**Ciphertext:** AG MV MK QY QB YT MA QB PM

**Plaintext :** SH EW EN TX TO TH ES TO RE

plaintext message is **"SHE WENT TO THE STORE"**