

# CON 101 - Assignment 5

(Cryptography - Substitution Cipher)

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**Q1** JRQH WR ZDWFK KDUOHTXLQV. EDFN DW VHYHQ.

Shift all by -3 to decode.



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

**GONE TO WATCH HARLEQUINS. BACK AT SEVEN.**

(Hint from DW - AT)

**Q2** We can shift them in 25 different ways. Shifting by 26 gives the same code.

So, 25 ways to encipher. (VIGENERE SQUARE).

**Q3** BPQA PIA JMMV APQNBML JG MQOPB

Shift all by -8 to encipher.



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

**THIS HAS BEEN SHIFTED BY EIGHT.**

(Hint that E is the most frequent letter like M here)

**Q4** T occurs most frequently here. It might represent 'E'. Shifted by 15.

VXKT BT RWTTHT EATPHT



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

**GIVE ME CHEESE PLEASE.**

**Q5** ZHCVHYP NYDCTG SJL GCMO

From the table:

**JANUARY BRINGS THE SNOW.**