## <u>Section 1 Lecture 5 – Caesar cipher - Exercises</u>

- Q1) Encrypt the following messages using a Caesar cipher with the given shifts:
  - (i) "HELLO AND WELCOME" (shift 3)
  - (ii) "CODES WERE USED A LONG TIME AGO" (shift 4)
  - (iii) "ARE WE NEARLY THERE YET" (shift 25)
- Q2) Decrypt the following messages created by a Caesar cipher (try various shifts until you find a sensible phrase):
  - (i) "WKLV LV QRW YHUB KDUG"
  - (ii) "GLEQTMSRW SJ IYVSTI XAMGI"
  - (iii) "WUH SIO NYFF QBUN CN CM SYN"
- Q3) Applying a Caesar cipher to the English word "DOLLS" can create another English word. What is it? Can you create any more examples like this?
- Q4) Optional you need some programming skills.

Write a program that allows you to type in a phrase and a shift then encrypts the phrase by that shift, and also allows you to type in a coded phrase and prints out all the possible decryptions of that phrase.