Subject :	**SEHH2238 : Computer Networking**
Lab/Tutorial :	**Session 10 : Network Security**

A. Symmetric Cryptography

1. In symmetric-key cryptography, how many secret keys are needed, if every person in a group of 10 people needs to communicate with
   a) Every other person in another group of 10 people
   b) Every other person in the same group

2. Encrypt the message "THIS IS AN EXERCISE" using a shift cipher with a key of 20. Ignore the space between words.

3. Encrypt "INTERNET" using a transposition cipher with the following key: 4 3 1 5 2.

B. Security

What are the DO's and DON'Ts for handling accounts & passwords?

<<You can search for the Internet>>

C. Asymmetric Cryptography

4. (Optional) In RSA, given two prime numbers p=19 and q=23, find n and ϕ. Choose e = 5 and try to find d, such that e and d meet the criteria.

5. What is danger in choosing 2 as the public key e in RSA?