Questions:

1- What are 802.3 and 802.11 ?
2- Which of the following best describe RC4:
    a. Byte oriented block cipher
    b. Bit oriented block cipher
    c. Byte oriented stream cipher
    d. Bit oriented stream cipher

3- What is the main logic operation of the RC4 algorithm? Could this operation be replaced by an AND or an OR operation?
4- What are the main considerations that are necessary to achieve a secure stream cipher? In your opinion which is the most important?
5- Which is more secure a block or a stream cipher?
6- List one advantage that block and stream ciphers have over one another.
7- How long is the key in the RC4 stream cipher?
8- Once the S vector is initialized how many bytes will it contain? Will it contain any duplicate bytes? Will the S vector ever contain any duplicate bytes?
9- Can the initial key K contain any duplicate bytes? How about the vector T?
10- A three-minute video clip with a frame resolution of 1280 x 720 uses true color. The clip has 24 frames per second.

    A large message file contains 1000 pages and has approximately 500 English words per page. Each character of this message is encoded using Unicode-16.

    Assume we use an RC4 algorithm to encrypt the video file and 3DES to encrypt the message. Which of the two encryption procedures will take longer. Show all calculations.