

CSS 322 – QUIZ 1

First name: _____ Last name: _____

ID: _____

Total Marks: _____

out of 10

Question 1 [4 marks]

Warrapat wants to send Chavalit a message.

a) Write the name of the security service that is needed for each of the following cases:

- a. Chavalit wants to be certain that the message came from Warrapat, and not from Sarissa.

Service: _____

- b. Warrapat wants to be certain that, after receiving the message, Chavalit does not deny that he received it.

Service: _____

Warrapat sends a message to Chavalit.

b) If Sarissa performs the following actions, then indicate the type (or name) of attack *and* indicate if it is a Passive or Active attack (circle the correct answer):

- a. Sarissa sends many messages to Chavalit, so that he can no longer use his network connection.

Type: _____ Active / Passive

- b. Sarissa captures the message, makes a change to the message, and at a later time, sends the changed message to Chavalit.

Type: _____ Active / Passive

- c. Sarissa captures the message, and makes observations about how Warrapat and Chavalit are communicating.

Type: _____ Active / Passive

Question 2 [2 marks]

Describe two disadvantages of using steganography to hide a secret message.

Question 3 [2 marks]

Encrypt the message “This quiz is easy” using the Vigenere cipher and the key SIIT. Treat all characters as the same case, ignore spaces, and use the mapping shown on this page.

Question 4 [2 marks]

The following ciphertext was encrypted using a rail fence transposition cipher. What is the original plaintext? There were no padding (extra) characters needed or used when encryption occurred.

Ciphertext: ndooaoywudbksroonyeg

0	a
1	b
2	c
3	d
4	e
5	f
6	g
7	h
8	i
9	j
10	k
11	l
12	m
13	n
14	o
15	p
16	q
17	r
18	s
19	t
20	u
21	v
22	w
23	x
24	y
25	z