QKD Homework 1 Classical Cryptography and Limitations

Due Dec 23 at 3:59am **Points** 10 **Questions** 10
Available Nov 25 at 1am - Dec 23 at 3:59am 28 days
Time Limit 60 Minutes **Allowed Attempts** 3

Take the Quiz Again

Attempt History

	Attempt	Time	Score
LATEST	Attempt 1	20 minutes	7 out of 10

Answers will be shown after your last attempt

Score for this attempt: **7** out of 10
Submitted Dec 15 at 7:48pm
This attempt took 20 minutes.

Last Attempt Details:

Time:	20 minutes
Current Score:	7 out of 10
Kept Score:	7 out of 10

2 More Attempts available

Take the Quiz Again

(Will keep the highest of all your scores)

Question 1 — 1 / 1 pts

The message is HIASJA. The binary string for some letters are:

H: 000 S: 111

I: 001 B: 011

A: 010 C: 110

J: 101 D: 100

In one time pad, the number of bits in the key are:

- 6
- 3
- 18
- 30

Incorrect

Question 2 — 0 / 1 pts

In above question a random key K is used, with

K = 110100101100101101

The ciphertext is

- HIASJA

- CJABCSI
- ABCHIS
- CJSBHS

Question 3

1 / 1 pts

Assign numbers 1 to 26 for letters a to z. The word 'me' is then encoded by the number

- 265
- 89
- 135
- 100

Question 4

1 / 1 pts

In RSA, two prime numbers p = 7 and q = 17 are chosen. For e = 5, the public key is given by

- (7,119)
- (5,17)
- (5,119)
- (7,17)

Incorrect

Question 5

0 / 1 pts

In Question 4 for RSA, take k = 4, then private key (d,n) is given by

- (140,119)
- (96,199)
- (77,119)
- (4,119)

Question 6

1 / 1 pts

For RSA questions 3 to 5, the encryption for the words 'ac' will be

- 55
- 89
- 135
- 13

Incorrect

Question 7

0 / 1 pts

In Asymmetric Cryptography, two different keys are shared by the receiver publicly.

- True
- False

Question 8

1 / 1 pts

Given that a and b are logical bits and $\oplus$ represents the parity operation, a $\oplus$ b $\oplus$ b is equal to

- b
- 1
- 0
- a

Question 9

1 / 1 pts

21 mod 5 is

- 4
- 5
- 1
- 20

Question 10

1 / 1 pts

In a quantum one time pad, the two keys with Alice are K_1 = 011, K_2 = 101. The keys that Bob will have are

- K1 = 011, K2 = 101
- K1 = 101, K2 = 011

- K1 = 100, K2 = 010
- K1 = 000, K2 = 111

Quiz Score: **7** out of 10

Previous Next