

Name: _____ score: _____ / 10

Instructions: There are 10 points possible on this quiz. No aids (book, notes, etc.) are permitted. You may use a non-programmable calculator. **Show all work and supporting calculations for full credit. Explain how you get your answers.**

Cryptography

1. (3 pts) Encrypt the plaintext **O P P O R T U N I T Y** using a Vigenère cipher with key word **B E A D**.

CIPHER TEXT:

2. (1 pt) What sort of analysis is a Caesar shift cipher vulnerable to that a Vigenère cipher is not?

3. (4 pts) Decrypt the message **NIXS SNUHE** if it was encrypted using a tabular transposition cipher with the encryption keyword **MUD**.

PLAIN TEXT:

Finance

4. (2 pts) Your bill at a restaurant is \$86.40 and you want to leave a 18% tip.
- How much would you add to the bill? Show your calculations.
 - What is the total amount you would pay if you paid exactly?