

AP Computer Science Principles
Unit 1 – Part 1 Test Review

Name: _____

1. Define the following terms in your own words:

- a. Prototype:

- b. Computer Science:

- c. Binary Question:

- d. Binary Message:

- e. Protocol:

- f. Bit:

- g. Bandwidth:

- h. Bitrate:

- i. Latency:

- j. Number System:

- k. Binary Number System:

- l. ASCII:

- m. Abstraction:

2. Conversions: Please put a box around your answer and show your work.

- a. What is the decimal equivalent of the binary number 1111?
- b. What is the decimal equivalent of the binary number 0100?
- c. What is the binary number equivalent of the decimal number 10?
- d. What is the binary number equivalent of the decimal number 123?

3. How many bits would you need if you wanted to have the ability to count up to 500?

4. Explain the layers of abstraction we covered in this unit and how they are related to each other (think about letters, decimal, binary, formatting, etc.).

5. What type of wire/cable best to use over long distances when transmitting data?

6. If I have a base 5 numbers system (a number system with 5 symbols), how many 3-place patterns could I make?