

QUIZ #01

CSCI-410 Spring 2013

20pts - 4pts per question, partial credit possible.

1. When communicating with a flashlight, why isn't it practical to just 'write' the letters in the air or use a sequential series of blinks (A = 1, B = 2, C = 3, etc) ? (Looking for two specific words.)

Writing letters in the air is not "precise" enough, while a string of blinks is not "efficient". (p4)

Anything that captures the notion, such as a string blinks not being "concise" enough, will be accepted.

2. Explain how speech itself (the English vocabulary) is a code (what do words represent?).

Words, which are just sequences of sounds, represent concepts such as identifiers and actions and the relationships between them. The choice of what sound represents what concept is largely arbitrary. (p5)

3. What makes certain codes "useful?" (Looking for a specific quote from the text.)

"A code is useful if it serves a purpose no other code can." (p5)

Any reasonable description of "usefulness" will receive partial credit of up to 2pts.

4. Morse code is frequently described as being binary because it consists of two symbols – dits and dahs. In what ways is this an inaccurate and misleading description?

You can't just right a sequence of dits and dahs (dots and dashes) and determine what it represents. You also have to have spaces (gaps between groups of dits and dahs), which is effectively a third symbol that is critical to decoding the message.

5. The book says that Braille is binary. Do you agree? Explain why or why not.

Yes and no. Like Morse code, Braille also relies on spacings between groups of dots to carry information. If the space was ONLY used to distinguish one set of dots from another, it would carry no actual information by itself. But different space length convey the breaks between words, and hence convey information that is NOT conveyed by the dots groups alone. However, a modified Braille with a space defined as a dot group with no raised dots could be used and thus different length spaces would be possible.