Chương 1: Number systems and codes

Dạng 1: Dạng dữ liệu biểu diễn trên máy tính.

1.28 Write the expression "G. Boole in ASCIIL, using an eight-bit code. Include the period and the space. Treat the leftmost bit of each character as a parity bit. Each eigh-bit code should have odd parity. (George Boole was a 19th-century mathem atician. Boolean algebra, introduced in the next chapter, bears his name.

Dạng 2: Các Đơn vị đo dữ liệu (bits, byte, word,…)

1.2\* What is the exact number of bytes in a system that contains

a.32K bytes

b.64M bytes

c.6.4G bytes

1.32 What bit must be complemented to change an ASCII letter from capital to Lowercase and vice versa?

Dạng 3: So sánh sự khác nhau giữa ngôn ngữ bậc cao và bậc thấp

Dạng 4: Các thành phần trong máy tính Computer (CPU, RAM, HĐ,BUS,…)

Dạng 5: Chuyển đổi qua lại giữa các hệ đếm

1.6 The solutions to the quadratic equation x2-11x+22 are x=3 and x=6. What is the base of the numbers?

**1.7** Convert the hexadecimal number 64CD to binary, and then convert it from binary to octal.

**1.8** Convert the decimal number 431 to binary in two ways:

(a) Convert directly to binary;

(b) Convert first to hexadecimal and then from hexadecimal to binary.

Which method is faster?

Dạng 6: Bù 1, Bù 2.

1.17 Perform subtraction on the given unsigned numbers using the 10’s complement of the subtrahend.Where the result should be negative, find its 10’s complement and affix a minus sign. Verify your answers.

(a) 4,637 - 2,579

(b) 125 - 1,800

(c) 2,043 - 4,361

(d) 1,631 - 745