1.

a. 100100101

b. 100101001

c. 11101100

d. 11011100

2.

a. C235

b. 8A34

c. F5E7

d.C3AD

3.

a. 1010 0011 0000 1111

b. 1100 0001 1111 1111

c. 1001 1000 0111 0110

d. 0100 1101 0011 1010

4.

a. 2A6

b. 3E8

c. 1000

d. FF

5.

a. 12

b. 13

c. 16

d. 22

6. Name the four virtual machine levels:

a. High level language

b. Assembly language

c. Instruction Set Architecture

d. Digital Logic

High level languages: High level languages are language like C++, JAVA, Pascal. Computers do not understand high level language as they are written in simple English language and thus, they required further translation for the machine to understand.

Assembly languages: Assembly language are low level language. They can be created from high level language or from the beginning for a specific task to perform.

Instruction Set Architecture: It is a machine language and related to programming. It tells the processor what task to perform.

Digital Logic: Digital logic represents the digital circuit’s signals and sequences through numbers.