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Logic Chapter 1

*Short Answer*1. Why is the CPU the most important component in a computer?  
***Because without it the computer could not run any software.***

2. What number does a bit that is turned on represent? What number does a bit that is turned off

represent?

***A turned on bit is a “1” and a turned off bit is a “0”***

3. What would you call a device that works with binary data?

***Digital***

4. What are the words that make up a high-level programming language called?

***Keywords or Reserved words***

5. What are the short words that are used in assembly language called?

***Mnemonic***

6. What is the difference between a compiler and an interpreter?

***The complier translates the High level language into a separate machine language that can then be executed any time it is needed.***

***The interpreter translates like a complier does but it also executes it immediately***

Exercises

1. A: 11 = 1011

B: 65 = 1000001

C: 100 = 1100100  
 D: 255 = 11111111

2. A. 1101 = 13

B. 1000 = 8

C. 101011 = 43

3. W: 87

i: 105

l:108

l:108

i:105

a:97

m: 109

4.

A: BASIC was made by John G. Kemeny and Thomas E. Kurtz in 1964. It was made to allow students in other fields than science and math to use computers. Most languages were too complex for beginners and it aimed to simplify coding for those without a technical background.

B: C++ was made by Bjarne Stroutstrup in 1985. It was created for efficiency and flexibility that C has but with support for Object Oriented Programming. They wanted software development to be more maintainable and efficient.   
C: Java was made by James Gosling in 1995. Java was created due to the need for a platform-independent language that could be used for consumer electronics.Gosling aimed for a language that was simpler, more reliable and more secure than C++.

D: Python was made by Guido van Rossum in 1991. Guido wanted to fix what he saw of ABC’s shortcomings. He wanted Python to be as easy and intuitive as possible and just as powerful as its competitors. He wanted it with clear readable syntax and the capability of exception handling and interfacing with the Amoeba OS.