Alan Thomas

CSI 131

Pg 5-28: 16eg, 17, 20, 22, 23, 25, 26

10/13/2014

16.)

e.) The microarchitecture can be summed as what the processor was designed to do. Once the function of the processor has been decided the ISA can be built into the microarchitecture.

g.) An address can be described by its location in memory. It’s not entirely different from the address to a person’s house. The processor fetches the information stored in said memory address and uses the data in that address as needed.

18.)

|  |
| --- |
| LOAD |
| 9 |
| ADD |
| X |
| MULT |
| 2 |
| STORE |
| 30 |
| HALT |

17.) Assembly language is a second generation language. Often referred to as a low level language due to its relationship (one-to-one) to the machine code it’s being programmed for. Some would argue it’s more difficult to code in than its third generation cousin – HLLs. However, due to its logical proximity to the processor it offers distinct performance gains.

20.) As per the text, “a string holds a ‘word’ which is multiple characters grouped together”. Another words, it’s a character variable that has more than one character for it’s value.

22.) BUS

23.) Device drivers provide the language or instructions to help the device communicate with the processor. There’s firmware which contains the drivers on a chip, than there’s other instances where you may be required to install to drivers via other means. They come in many forms, but they all perform the same basic function – facilitate communication between said device and the processor.

25.) The computer architecture determines how the computer will function. In other terms, it determines how the computer will communicate with all of the different components. How will data from RAM be fetched? How will information be written into storage? It answers these sorts of questions.

26.) It would require 8 cycles to transmit 128 bits. (128 Bits / BUS of 16 = 8)