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Csc 310
Assignment
Question
Briefly explain each of the following architectures: 1. RISC 2. CISC 3. VLIW.

Answers

1) RISC Architecture

The term RISC stands for ''Reduced Instruction Set Computer''. It is a CPU design plan based on simple orders and acts fast.This is small or reduced set of instructions. Here, every instruction is expected to attain very small jobs. In this machine, the instruction sets are modest and simple, which help in comprising more complex commands. Each instruction is about the similar length; these are wound together to get compound tasks done in a single operation. Most commands are completed in one machine cycle. This pipelining is a crucial technique used to speed up RISC machines.

2) CISC Architecture

The term CISC stands for ''Complex Instruction Set Computer''. It is a CPU design plan based on single commands, which are skilled in executing multi-step operations.CISC computers have small programs. It has a huge number of compound instructions, which takes a long time to perform. Here, a single set of instruction is protected in several steps; each instruction set has additional than 300 separate instructions. Maximum instructions are finished in two to ten machine cycles. In CISC, instruction pipelining is not easily implemented.

3) <u>VLIW (very long instruction word)</u>

Very long instruction word (VLIW) describes a computer processing architecture in which a language compiler or pre-processor breaks program instruction down into basic operations that can be performed by the processor in parallel (that is, at the same time).

Very long instruction word (VLIW) describes a computer processing architecture in which a language compiler or pre-processor breaks program instruction down into basic operations that can be performed by the processor in parallel (that is, at the same time). These operations are put into a very long instruction word which the processor can then take apart without further analysis, handing each operation to an appropriate functional unit.