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CISS 360

Week 1 Handwritten Assignment 3

Section 2.8 questions 1,2,3,4,5,6,7 and 8

1. In 32-bit mode, aside from the stack pointer (ESP), what other register points to variables on the stack?
   1. The EIP, or instruction pointer, register contains the address of the next instruction to be executed.
2. Name at least four CPU status flags.
   1. Overflow, Sign, Zero, Auxiliary Carry, Parity, and Carry flags.
3. Which flag is set when the result of an unsigned arithmetic operation is too large to fit into the destination?
   1. Carry
4. Which flag is set when the result of a signed arithmetic operation is either too large or too small to fit into the destination?
   1. Overflow
5. (True/False): When a register operand size is 32 bits and the REX prefix is used, the R8D register is available for programs to use.
   1. True
6. Which flag is set when an arithmetic or logical operation generates a negative result?
   1. Sign
7. Which part of the CPU performs floating-point arithmetic?
   1. The floating-point unit (FPU)
8. On a 32-bit processor, how many bits are contained in each floating-point data register?
   1. 80