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| Week | Reverse Engineering Malware | Duration |
| 1 | X86 Processor Architecture | 20 mins |

Marks allocation: 2/100 for CA tutorial submission

**Lesson Objectives**

* Understand X86 Processor Architecture and Registers

1. In 32-bit mode, aside from the stack pointer (ESP), what other register points to variables on the stack? **EBP**

2. Name at least four CPU status flags. **Choose 4 from: Carry, Zero, Sign, Direction, Aux Carry, Overflow, Parity.**

3. Which flag is set when the result of an unsigned arithmetic operation is too large to fit into the destination? **Carry flag**

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? **Overflow flag**

5. Which flag is set when an arithmetic or logical operation generates a negative result? **Sign flag**

6. Which part of the CPU performs floating-point arithmetic? **Floating-point unit**

7. On a 32-bit processor, how many bits are contained in each floating-point data register? **80 bits**

8. (True/False): The 64-bit instruction set is backward-compatible with the x86 instruction set. **True**

9. (True/False): In current 64-bit chip implementations, all 64 bits are used for addressing. **False**

10. (True/False): The Itanium instruction set is completely different from the x86 instruction set. **True**

END