Questions:

1. Answer each of the following questions in one sentence. What are processor modes? How many modes does Intel i5 core have? What is the mode of operation of an Intel i5 core when it executes a procedure call? What is the mode of operation of an Intel i5 core when it executes a system call?

1. Processor modes are privilege level operating modes, which are used by central processing units of some types of computer architectures. They are different types of habits for which a processor creates an operating environment. Their main purpose is to restrict the type and scale of operations being run by the CPU. There are different modes of operation depending on the core being used.

An Intel i5 Core has 3 modes of operation, the real mode, protected mode and the SMM mode. It also allows for the ability to run a fourth pseudo mode of the protected mode called Virtual 8088. A procedural call is executed by in protected mode during which the Intel Core is running its execution environment. The mode of operation for a system call occurs during the real mode when the processor is booting the computer.

Reference URL:

<http://flint.cs.yale.edu/feng/research/BIOS/procModes.htm>

http://www.intel.com/content/www/us/en/support/processors/000007194.html