1. What is the purpose of the NVIC peripheral?

The NVIC peripheral manages interrupt handling by enabling/disabling interrupts, tracking pending requests, canceling pending interrupts, and establishing priorities for multiple interrupts.

1. What is the difference between interrupt tail-chaining and nesting?

Tail-chaining uses built in hardware to handle interrupts sequentially by priority, potentially delaying lower-priority ones. Interrupt nesting allows higher-priority interrupts to interrupt lower-priority ones, enabling immediate servicing but introducing complexities like potential data corruption.

1. In what file are the CMSIS libraries that control the NVIC?

ARM Ltd. provides the cortex microcontroller software interface standard (CMSIS) library. The CMSIS functions are located in the core\_cm0.h file.

1. What is the purpose of the EXTI peripheral?

The EXTI peripheral is responsible for handling external interrupt signals generated by external sources. This allows it to respond to external events in a timely manner and perform appropriate actions or tasks in response to those events.

1. What is the purpose of the SYSCFG pin multiplexers?

The SYSCFG peripheral controls the multiplexer that is necessary to select the pins that connect to the limited EXTI inputs. The SYSCFG handles signal routing, data transfer between peripherals and memory, memory remapping, and some high-power communication modes.

1. What file has the defined names for interrupt numbers?

In the stm32f0xb.h file, the defined names for the interrupt numbers can be located where the IRQn\_Type enumeration values are.

1. What file has the Vector table implementation?

Vector Table implementation is located in the startup\_stm32f072xb.s file within the Application/MDK-ARM directory.