The following is a list of possible questions for our quiz on November 5th. Some of the questions will not be asked in the quiz. All the questions that will appear in the quiz will appear exactly as shown below (however, numeric parameters may be changed). The quiz is closed textbook, closed notes and closed neighbors. Note that the questions, which did not appear in this quiz, still may appear in the exams. You will find a solution for these questions during lectures.

#15: What is the advantage(s) and disadvantage(s) of “polling” (compared to “interrupt”)?

Polling never interrupts a processor, meaning that a processor that may be executing something critical will not be interrupted.

#16: What is “the service routine table”?

The service routine table is the table that holds the memory address for the device driver for each I/O device installed in a computer system.

#17: What is “IRR (Interrupt Request Register)”?

Interrupt Request Register indicates which I/O device(s) need attention from the processor.

#18: What is “device driver”?

Device drivers are the software a processor needs to execute to handle the events that happen at each I/O device. Each device driver has two interfaces, one for the processor (the operating system) and the other for the I/O device hardware.

#20: Most of the computer systems assign “interrupt number (it is “IRQ” for IBM-compatible personal computers). What are the advantages of managing I/O devices using unique integers?

- By having IRQ numbers, a processor can recognize which I/O device(s) needs attention from the processor.
- IRQ number indicates the priority of the I/O devices, when more than one I/O device needs attention from a processor.

#21: The interrupt table contains the address of the program, each of which is used to service I/O requests at each specific I/O card. The program is also known as something else. How is the program called?

“device drivers”

#22: When an interrupt occurs while a user program is being executed by a processor, the stack area in the user program is used, but why?

For saving processor registers (for the program which is taken away the processor)