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Course Title: Computer peripherals and
Interfacing.

Answer to the question no:1(a)

1. (a) Ans: Computer interfacing and peripherals with example: Taking input from a keyboard is a peripheral interfacing. Here keyboard is the peripheral device. printing a document with a printer is a peripheral interfacing where printer is the peripheral device. Showing a video on the monitor is a peripheral interfacing and this case monitor is the peripheral device.

Computer interfacing examples: computer mouse, remote control, virtual reality, ATMs, speedometer, the old ipod click wheel.

Computer peripherals examples: They are three different types:

- ① Input peripherals: This includes the computer mouse and keyboard as well as scanners and web cameras.
- ② Output peripherals: Output devices such as printer, plotters and monitors.
- ③ Storage peripherals: External hard drive drives, flash drives and media cards.

Answer to the question no: 1 (b)

1. (b) Ans: Interrupt: An interrupt is a signal emitted by a device attached to a computer or ~~more~~ from a program within the computer. It requires the operating system (OS) to stop and figure out what to do next. An interrupt temporarily stops or terminates a service or a current process.

Interrupt examples: One example of this is moving a mouse or pressing a keyboard key. In these examples of interrupts, the processor must stop to read the mouse position or keystroke at that instant. In this type of interrupt, all devices are connected to the interrupt Request Line (IRL);

Answer to the question no:2 (a)

2. (a) Ans: There are many sources for interrupts varying from simply asserting an external pin to error conditions within the processor that require immediate attention.

- # Internal Interrupts.
- # External Interrupts.
- # Exceptions.
- # Software Interrupts.
- # Non-maskable interrupts.

Answer to the question no:2(b)

2. (b) Ans: Interrupt context switching instead interrupts the process currently running on the router usually bypasses the RIB, and works with parallel tables which are built more efficiently (the details of these tables differ according to the switching path in use). Context switching is the mechanism that allows multiple processes to use a single CPU. context switching stores the status of the ongoing processes so that the process can be reloaded from the same point from where it was stopped.

Answer to the question no: 2(a)

2. (a) Ans: Analog interfacing: An analog interface is an electrical connection that forwards analog electric signals to downstream electric and electronic devices or components for further processing. Standardised analog interfaces (e.g. 0/1-20mA and 0/2-10V) are also referred to as standard signals.

Answer to the question no: 3(b)

3. (b) Ans: Interrupt vector table: An interrupt vector table (IVT) is a data structure that associates a list of interrupt handlers with a list of interrupt requests in a table of interrupt vectors. Each entry of the interrupt vector table, called an interrupt vector, is the address of an interrupt handler. While the concept is common across processor architectures, IVTs may be implemented in architecture-specific fashions. For example, a dispatch table is one method of implementing an interrupt vector table.

(4) (5)

Vector table Service Routine: Interrupt Vectors are addresses that inform the interrupt handler as to where to find the ISR. (Interrupt service routine also called interrupt service procedure). All interrupts are assigned a number from 0 to 255, with each of these interrupts being associated with a specific interrupt vector.