Question Bank

a. **Interfacing with peripherals like keyboards, LEDs, 7 segment LEDs, LCDs, ADCs, etc.**

Q1. Sketch and explain the interface of 5x4 key matrix using 74923.
Write an 8051 assembly program segment to input the code of keys.

Q2. Sketch and explain the interface of 4X7Segment LEDs in multiplexed mode.
Write an 8051 assembly program segment to flash CEDT at 5Hz

Q3. Sketch the interface of a 16ch x 1line LCD to the 8051 microcontroller. Write an 8051 assembly program segment to display any Logo

Q4. Sketch the interface of a serial ADC MAX 192 to the 8051 microcontroller. Write an 8051 assembly program segment to read an analog signal through the ADC

Q5. Sketch the interface of a dual DAC 7303 to the 8051 microcontroller. Output the DAC outputs are connected to an analog comparator. A LED is connected to the output of the comparator for indication. Write an 8051 assembly program segment to flash if one analog input is greater than the other.

Q6. Sketch the interface of a RTC 1302 to the 8051 microcontroller. Write an 8051 assembly program segment to read and write real time into the RTC.