



- 6 Draw the PSW register for 8051.
  - 7 Explain Special function register TMOD in detail
  - 8 Discuss the interrupt priority used in 8051.
  - 9 Which register has the TI and RI bit, and what is its bit address?
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- Q3 A Discuss in detail the architecture of 8051 microcontroller. [06]  
Q3 B What is addressing mode? Explain different addressing modes of 8051. [06]  
OR  
Q3 B Write a program to multiply two 16 bit numbers stored in RAM locations. [06]
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- Q4 A Enlist the different JUMP instructions and explain each in detail. [06]  
Q4 B Write a program to add first ten natural numbers. [06]  
OR  
Q4 B Explain Rotate instructions used in 8051 microcontroller. [06]
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- Q5 A Explain the timer counter modes of operation in 8051. [06]  
Q5 B Generate a square wave with a duty cycle of 33% for time period 10 ms on all pins of Port0. [06]  
Assume an XTAL of 11.0592 MHz.  
OR  
Q5 B Explain the programming of 8051 to transfer data serially. [06]
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- Q6 A Explain in detail Input/Output ports of 8051. [06]  
Q6 B What is an interrupt? Explain types of interrupts in 8051. [06]  
OR  
Q6 B Write a program to generate a sine wave. Show necessary calculations. [06]
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