

## MIDSEM

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1. Define the followings:
    - (a) Relationship between Bus Latency and Bus Bandwidth.
    - (b) Role of linker in 8051  $\mu$ C.
    - (c) Relationship between Speed, Cost and Size in reference to memory system.
    - (d) Role of external capacitor in case of crystal oscillator.
    - (e) Name of the register which contain the meaning of instruction to ALU, coming from ROM.
  2.
    - (a) Explain the Watchdog timer with the help of suitable diagram.
    - (b) Sketch the block diagram of 8051  $\mu$ C and explain it.
  3. Write a short note on the followings:
    - (a) Write the assembly code to turn ON and OFF LED continuously.
    - (b) Sketch the block diagram of DMA controller.
    - (c) Read-Modify-Write feature of 8051  $\mu$ C with the help of example.
    - (d) In 8051  $\mu$ C, no. of clock pulses required to complete one instruction cycle?
    - (e) Explain special function of PSW of 8051 $\mu$ C in reference to memory.
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“Invention is the most important product of man’s creative brain. The ultimate purpose is the complete mastery of mind over the material world, the harnessing of human nature to human needs.”

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*Nikola Tesla (My Inventions)*

# Answers

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