

REG. NO.

B.E. /B.TECH.(FULL TIME) DEGREE END SEMESTER EXAMINATION APRIL / MAY 2019
ELECTRONICS AND COMMUNICATION ENGINEERING BRANCH. /Bio-med

EC8503 - MICROPROCESSOR AND MICROCONTROLLERS.

(REGULATIONS 2012)

Duration: 3 Hrs.

Max. Mark:100

Answer All Questions.

Part A

10 X 2 = 20 Marks.

1. What is the maximum addressing capability of 8085 microprocessor.
2. What is the role of ALE pin available in 8085 microprocessor.
3. List the flag pattern of 8086 microprocessor.
4. Give the difference between parallel processing and pipelining.
5. Give the difference between 8031 and 8051 microcontroller.
6. Give the difference between 8251 and 8255.
7. Give the difference between UART and USART.
8. Give the application of the IC 8279.
9. What is key debouncing?
10. Give the pin details of a (2x16) LCD.



Part B

5 X 16 = 80 Marks.

- 11(a)(i). Draw the timing diagram for the 8085 instruction MOV A,M. Assume other details (8 Marks).
- (ii). Briefly explain the addressing modes of 8086 microprocessor. (8 Marks).

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12(a). With a neat diagram explain the architecture of 8085 microprocessor. (16 Marks).

(OR)

12(b). Explain the pin details of 8086 microprocessor. (16 Marks).

13(a). With a neat diagram explain the function of Programmable peripheral interface IC 8255. (16 Marks).

(OR)

13(b). With a neat diagram explain the function of key board display controller IC 8279. (16 Marks).

14(a). Briefly explain the design and construction of microcontroller based coffee vending machine. (16 Marks).

(OR)

14(b). With a neat diagram explain the method of interfacing stepper motor with 8085 microprocessor. (16 Marks).

15(a). Briefly explain the Timer / counter programming in 8051 microcontroller. Write a program to generate a square wave of 50Khz with 50% duty cycle in port pin P3.3 using timer. Assume all other details. (16 Marks).

(OR)

15(b). With a neat diagram explain the hardware interrupts and all its associated SFRs available in 8051 microcontroller. (16 Marks).

