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Question Paper Code: 34423

B.E. / B.Tech. DEGREE EXAMINATION, APRIL 2019

Fourth Semester

Computer Science and Engineering

(Common to Information Technology)

01UEC423 - MICROPROCESSORS AND MICROCONTROLLERS

(Regulation 2013)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions.

PART A - (10 x 2 = 20 Marks)

1. List the flags of 8086 microprocessor.
2. What is the use of ALE?
3. Why status signals are provided in microprocessor?
4. What is the difference between the following instructions of 8086?
MOV AX, TABLE_ADDR and LEA AX, TABLE_ADDR.
5. What is the advantage of using 8089 I/O processor instruction of DMS controller?
6. How 8089 operates in loosely coupled configuration and closely coupled configuration?
7. What is a programmable peripheral device?
8. List six modes of timer.
9. Specify the call statement in 8051 with its significance.
10. List the features of 8051 microcontroller.

PART - B (5 x 16 = 80 Marks)

11. (a) Describe in detail with the neat diagram of the 8085 architecture with its functions (16).
Or
(b) Explain in detail the addressing modes of 8085 with suitable examples. (16)
12. (a) Draw the pin descriptions for 8086 and status signal defined in 8086. (16)
Or
(b) Explain the physical memory organization in an 8086 system. (16)
13. (a) (i) Draw the internal block diagram of 8087 co-processor and explain. (8)
(ii) Discuss in detail about the data types used in 8087. (8)
Or
(b) Explain the architecture of numeric data processor in detail. (16)
14. (a) Describe in detail about the operation of programmable timer (8253) under different modes. (16)
Or
(b) Explain briefly about the
(i) Modes of operation of timer. (8)
(ii) Operation of interrupt controller. (8)
15. (a) Discuss the registers available in 8051 for serial communication. (16)
Or
(b) Describe the different modes of operation of timers/counters in 8051 microcontroller. (16)
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