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Question Paper Code: 31447

B.E. / B.Tech. DEGREE EXAMINATION, NOV 2016

Fourth Semester

Computer Science and Engineering

01UEC423 – MICROPROCESSORS AND MICROCONTROLLERS

(Common to Information Technology)

(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. Define machine cycle.
3. Write about the different types of interrupts supported in 8086.
4. Define macros.
5. What are modes used in keyboard and display controller?
6. List the numeric data processor types.
7. Draw the pin diagram of 8051.
8. List six modes of timer.
9. Mention the advantages of Direct Memory Access.
10. Write the difference between microprocessor and 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) Explain briefly about the internal hardware architecture of 8086 microprocessor with a neat diagram. (16)

Or

- (b) (i) Explain about the Assume, EQU, DD assembler directives. (8)

- (ii) Explain briefly about the interrupt handling process in 8086. (8)

13. (a) Explain in detail about closely coupled configurations and compare with loosely coupled configurations. (16)

Or

- (b) Explain the architecture of numeric data processor in detail. (16)

14. (a) Explain the 8279 keyboard and display controller with a neat sketch. (16)

Or

- (b) With neat block diagram, explain the description and functions of interrupt controller. (16)

15. (a) Describe the architecture of 8051 with neat diagram. (16)

Or

- (b) Describe the different modes of operation of timers/counters in 8051 microcontroller. (16)