Reg. No. :

Question Paper Code: 35062

B.E. / B.Tech. DEGREE EXAMINATION, NOV 2017

Fifth Semester

Instrumentation and Control Engineering

01UIC502 – MICROPROCESSORS AND CONTROLLER

(Regulation 2013)

Duration: Three hours   Maximum: 100 Marks

Answer ALL Questions.

PART A - (10 x 2 = 20 Marks)

1. Discuss the function of program counter.

2. List the pointer and index registers of 8086 architecture.

3. How does a microprocessor differentiate between data and instruction code?

4. What is meant by look up table?

5. Differentiate the features of 8051 with 8085.

6. Name the port used for external memory access control signal in 8051.

7. Draw the generalized block diagram of 8085 based temperature control system.

8. List the functional blocks of 8259.

9. Define system integration.

10. Differentiate RISC and CISC processor.

PART - B (5 x 16 = 80 Marks)

11. (a) With a neat diagram discuss in detail about pin diagram of 8085.   (16)

Or

(b) With a neat diagram discuss in detail about architecture of 8086.　　　(16)

12. (a) List different addressing modes of 8085 and discuss them.　　　(16)

Or

(b) List the different control instructions in 8085 and explain any two with example.

(16)

13. (a) Discuss in detail about architecture of 8051.　　　(16)

Or

(b) Explain the serial communication with various modes of operation.　　　(16)

14. (a) With a neat diagram explain in detail about 8085 based traffic light controller.　(16)

Or

(b) With a neat diagram explain in detail about control of stepper motor using 8051.

(16)

15. (a) Explain the different types of memory and memory management methods.　(16)

Or

(b) List out the stages of embedded system design process and explain them in detail.

(16)

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