Reg. No. : ☐☐☐☐☐☐☐☐☐☐☐☐

Question Paper Code : 63173

B.E./B.Tech. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2016.

Fifth/Sixth Semester

Electronics and Communication Engineering

EC 1301 — MICROPROCESSOR AND MICRO CONTROLLER

(Common to Electrical and Electronics Engineering, Electronics and Instrumentation Engineering and Instrumentation and Control Engineering)

(Regulations 2008)

Time : Three hours   Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1.   Which is the high priority interrupt in 8085?

2.   What is meant by instruction cycle?

3.   List out the ports in 8255

4.   What is key debouncing?

5.   How many data lines and Address lines are available in 8086?

6.   What is pipelined architecture?

7.   What are the flags in the P5W register of 8051?

8.   What is the use of Timer and counter in 8051?

9.   Give the PSW setting for masking Register bank 2 as default in 8051?

10.   What is RLA, RRA in 8051?

PART B — (5 × 16 = 80 marks)

11. (a) Explain the architecture of 8085 with a neat sketch. (16)

Or

(b) List out the various addressing modes of 8085. (16)

12. (a) (i) Explain 8255 working with a neat diagram and also explain the modes of operation. (12)

(ii) What is meant by SAR in ADC. (4)

Or

(b) (i) Explain about I²C standard bus architecture. (8)

(ii) Explain Rs232-C 25 pin assignments. (8)

13. (a) Explain Minimum mode and Maximum mode operation in 8086. (16)

Or

(b) (i) List out the Addressing modes of 8086. (10)

(ii) State the function of DAA, BBW, DAS 8086 instructions. (6)

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

Or

(b) (i) Explain the Timer 1 Mode 0, Mode1 and Mode 2 operation. (12)

(ii) Give the bits in PCON special function register. (4)

15. (a) Draw the schematic for interfacing a stepper motor with 8051 microcontroller and write a 8051 ALP to for changing the direction of motor. (16)

Or

(b) (i) With a neat circuit diagram explain how a 4 × 4 keypad is interfaced with 8051. (10)

(ii) Differentiate CALL and Subroutine instructions. (6)

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