Reg. No. : ☐☐☐☐☐☐☐☐☐☐☐☐

Question Paper Code : 31263

B.E./B.Tech. DEGREE EXAMINATION, MAY/JUNE 2013.

Fifth Semester

Electronics and Communication Engineering

080290030 — MICROPROCESSORS AND APPLICATIONS

(Regulation 2008)

Time : Three hours   Maximum : 100 marks

Answer ALL questions.

PART A.— (10 × 2 = 20 marks)

1.   Give the advantage of Interrupt Vs Polling.

2.   Write a program in 8085 to add the nibbles available in B register and put the result in C register.

3.   Give the method of generating 20 bit address using 16 bit register available in 8086.

4.   What is paging?

5.   How will you do multiprocessor communication in 8086 microprocessor?

6.   What is an assembler?

7.   Define USART.

8.   Give the application of DMA controller.

9.   What is an interrupt driven I/O?

10. Give the interfacing schematic of a microcontroller with DC motor?

PART B — (5 × 16 = 80 marks)

11. (a)   (i)   Draw the timing diagram for the 8085 instruction MOV A, M.   (8)

           (ii) Briefly explain serial·communication using 8085 microprocessor. (8)

Or

     (b)   Draw the timing diagram for the 8085 instruction JUMP 4544. Assume other relevant details.   (16)

12. (a) (i) Briefly explain the minimum mode CPU module of 8086 microprocessor. (8)

    (ii) Briefly explain the interrupts available in 8086 microprocessor. (8)

Or

    (b) (i) With a neat diagram explain the BIU and EU available in 8086 microprocessor. (8)

    (ii) Explain memory segmentation using 8086 microprocessor. (8)

13. (a) Briefly explain the Addressing modes of 8086 microprocessor. (16)

Or

    (b) (i) Enumerate the Logical and arithmetic instructions available in 8086 microprocessor. (8)

    (ii) Briefly explain the string instructions available for 8086 microprocessor. (8)

14. (a) (i) With a neat block diagram explain the function of the IC 8254. (8)

    (ii) With a neat block diagram explain the function of the IC 8255 (8)

Or

    (b) (i) With a neat block diagram explain the function of the IC 8279. (8)

    (ii) With a neat block diagram explain the function of the IC 8251. (8)

15. (a) Explain optical motor shaft Encoder. With a neat diagram explain the method of determining the position of the shaft using microcontroller. (16)

Or

    (b) (i) With a diagram explain the method of interfacing microcomputer with high power device. (8)

    (ii) Briefly explain the types of memory available. (8)

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