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Total No. of Pages : 02

Total No. of Questions : 08

M.Tech.(ECE) (E-I) (Sem.–2)

ADVANCED MICROPROCESSOR & EMBEDDED SYSTEMS

Subject Code : EC-510

M.Code : 36211

Time : 3 Hrs. Max. Marks : 100

INSTRUCTION TO CANDIDATES :

1. **Attempt any FIVE questions out of EIGHT questions.**
2. **Each question carries TWENTY marks.**

1. a. How physical address is generated in 8086 microprocessor? Explain it with diagram and an example.

   b. Differentiate overlapped and non-overlapped memory segmentation.

2. a. Write a program using 8086 microprocessor to count the number of 1's in a byte and assume the number and result stored in memory location.

   b. Explain the following instruction of 8086 microprocessor.

      i) XLAT

      ii) DAA

      iii) INC

      iv) SHL

      v) STD

3. a. Write a program to add ten 16-bit numbers and result store at memory location.

   b. Draw and explain the minimum mode configuration of 8086 Microprocessor .

4. Draw and explain the internal architecture of 8086 microprocessor in details.

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5. a. Draw and explain the interfacing diagram of A/D convert with 8086 microprocessor.

   b. Write the program to display 'Embedded' on the LCD display by using 8086 microprocessor.

6. a. Explain the Pentium Architecture with the help of diagram.

   b. Explain the addressing modes of 80186 microprocessor with suitable example.

7. a. Draw and explain the interfacing diagram of DMA with 8086 microprocessor.

   b. Draw and explain the block diagram of universal synchronous receiver transmitter.

8. a. What are the different challenges related to an embedded system development?

   b. Explain the various interrupts of 8086 microprocessor.

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NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.

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