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M – 6271

Reg. No. ....

Name : .....

**Sixth Semester B.Tech. Degree Examination, December 2021**

**08.602 — MICROPROCESSORS AND APPLICATIONS (E)**

**(2008 Scheme)**

Time : 3 Hours

Max. Marks : 100

PART – A

Answer **all** questions.

1. Explain about the instruction format of 8085 microprocessor.
2. Explain assembler and cross assembler.
3. Draw the timing diagram of MOVE instruction.
4. Differentiate IO and Memory interfacing.
5. What are the various interrupt instructions used in 8085 microprocessor?
6. How to interface LEDs with 8085 Microprocessor?
7. Differentiate between maskable and non-maskable interrupts.
8. Explain instruction pointer and stack pointer.
9. Explain how pipelining is done in the 8086 microprocessor.
10. Write an assembly language program using 8086 for finding the maximum number in an array of four 16 bit numbers.

**(10 × 4 = 40 Marks)**

P.T.O.



PART – B

Answer **one** full question from each module.

**Module – I**

11. (a) With the help of a neat diagram explain the internal architecture of 8085 microprocessor. **10**
- (b) Write an assembly language program using 8085 instruction sets to multiply two 8 bit numbers stored in memory. **10**

OR

12. (a) Describe the timing and control operation of 8085 microprocessor with suitable examples. **10**
- (b) Write an assembly language program to perform basic arithmetic operations using CALL and RETURN instructions. **10**

**Module – II**

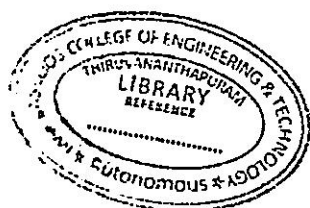
13. (a) Draw the pin out diagram of programmable peripheral interface PPI 8255 and explain its operation. **10**
- (b) Write an assembly language program for the interface of A/D converter. **10**

OR

14. (a) Explain briefly about memory interfacing with 8085 microprocessor. **10**
- (b) Explain the DMA mode of data transfer using 8085 microprocessor with the help of flow charts. **10**

**Module – III**

15. (a) Explain the operation of bus interface unit and execution unit in the architecture of 8086 microprocessor. **10**
- (b) Explain with example the various addressing modes of 8086 instruction set. **10**



OR

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16. (a) Discuss about the minimum and maximum modes of operation of 8086 microprocessor. 10
- (b) Explain how 20 bit physical address is generated from 16 bit Effective Address. 10

(3 × 20 = 60 Marks)

