5th Semester Regular / Back Examination: 2019-20
MICROPROCESSOR & ITS INTERFACING
Branch: AEIE, EIE, IEE
Max Marks: 100
Time: 3 Hours
Q Code : HRB164
Answer Question No.1 (Part-1) which is compulsory, any eight from Part-II and any two from Part-III.
The figures in the right hand margin indicate marks.

Part- I

Q1 Only Short Answer Type Questions (Answer All-10)   (02x10)
        Suggested Words: How, Why, Determine, Derive, State, Write, Create, etc

a) What is the difference between Microprocessor and CPU?

b) What is the word length of 8085 Microprocessor?

c) Why the data bus is bidirectional and address bus is unidirectional in a Microprocessor?

d) How many T States are thee in Opcode Fetch Machine cycle?

e) State the meaning of DAA instruction.

f) Which port of 8255PPI is divided into two parts? And what are its names?

g) What is the difference between microprocessor and microcontroller?

h) Why a segment in 8086 is of 64KB? Explain.

i) What is the need of two memory banks in 8086 microprocessor?

j) If we need to operate 8086 in maximum mode, which signal need to be used and what value need to be applied?

Part- II

**Q2 Only Focused-Short Answer Type Questions- (Answer Any Eight out of   (06x08)
     Twelve)**

Analyze, Justify, Design, Formulate, Calculate, Develop, Illustrate, Explain, Distinguish, Differences & Similarities

a) Discuss the register organization of 8085 microprocessor.

b) Explain the priority of interrupts of 8085.

c) How to calculate the physical address in 8086 microprocessor? Explain the various components of physical address calculation.

d) How many T States are there in STA 4200H instructions?

e) What is the need of 8288 bus controller?

f) Draw the memory read timing diagram for 8085 Microprocessor.

g) Draw the block diagram of 8251 and explain the Transmitter clock.

h) What are the different DMA modes available in 8257?

i) Explain the different modes of 8253 timer.

j) Write the data transfer instructions of 8051 microcontroller.

k) Explain the Bus Interface Unit of 8086

l) What are the different segment registers available in 8086 microprocessor and what are its use?

Part-III

Only Long Answer Type Questions (Answer Any Two out of Four)
Discuss, Describe, Examine, Classify, Prove, Evaluate, Compare, Contrast, etc

Q3 Explain the different pins of 8085 microprocessors. Explain the different interrupts of 8085 microprocessor **(16)**

Q4 Discuss the various 8085 instructions. **(16)**

Q5 Draw the block diagram of 8255PPI and explain the different operating modes with the help of necessary control words. **(16)**

Q6 Write 8085 assembly language program to sort the 8 bytes in ascending order. **(16)**