V- SEM ELECT & ETC/ELECTRICAL/2019(W) / (New)

ETT 521-MICROPROCESSOR & ITS INTERFACING

Full Marks: 80 Time : 3 Hours

Answer any FIVE Questions including Q.No.1&2

Figures in the right hand margin indicates marks

1.	Answer **ALL** the Questions.	**[2 x10]**
(a)	What are the different mode of operation of 8253?	
(b)	Write the difference between SPR and GPR.	
(c)	What is the function of stack pointer and program counter?	
(d)	Give two examples of 2-byte and 3-byte 8085 Instruction.	
(e)	Define DMA Technique. Which pins of 8085 comes under this group.	
(f)	What do you mean by Non-Maskable interrupt? Give example.	
(g)	What is Microprocessor and Microcontroller?	
(h)	What do you mean by Hand assembler and cross assembler?	
(i)	Write the flag register of 8085?	
(j)	Name various machine cycles of Intel 8085 MPU along with their No of T-States.	
2.	Answer Any **SIX** Questions.	**[5 x 6]**
(a)	What is Bus? With neat diagram explain bus structure of 8085 microprocessor.	
(b)	Explain the different addressing modes of 8085 microprocessor with examples.	
(c)	Draw the timing diagram of **INR M** instruction of 8085 microprocessor.	
(d)	Write an ALP to find sum of two 8-bit numbers whose sum is 16-bit using 8085 instruction sets.	
(e)	With proper flow chat explain one register and two register time delay.	
(f)	Explain the working of Digital Clock programme with a neat block diagram.	
(g)	With neat sketch explain the each bit position of Intel 8085 Flag resistor.	
3.	Draw the pin diagram of 8085A microprocessor and explain the function of each pin.	**[10]**
4.	Draw the functional block diagram of Intel 8255 & explain the function of each block.	**[10]**
5.	Write an ALP to find the Largest number in an array of 8-bit data. Using 8085 MP Instructions.	**[10]**
6.	Design and explain the Traffic Light Controller program with a neat block diagram.	**[10]**
7.	Write an assembly language program to subtract two numbers of 8bit data stored in the memory location 2500H and 2501H and store the result in 2000H	**[10]**