**Model question (Set-1)**

**MICROPROCESSOR AND MICROCONTROLLER**

**Semester-4TH SEM Branch-E&TC/IT**

**F.M- 80**

**1. Answer All. (2\*10)**

1. What is stack and why it is used in program?
2. Define opcode and operand.
3. What is USART
4. State the difference between self-assembler and cross assembler.
5. What is the significance of MX’/MN pin in 8086.
6. Define DMA techniques. Which pins of 8085 belongs to this group.
7. State the function of INR M instruction in 8085. Write its number of machine cycles.
8. What is the function of PSEN’ in 8051?
9. Name the hardware interrupts of 8086.
10. Which instructions are used for the operation of stack & subroutine in 8085?

2. Answer any six question. (5\*6)

1. Discuss different types of register in 8085 and write down the difference between GPR and SPR.
2. State and explain the function of stack pointer and stack top.
3. Draw the timing diagram of instruction MVI r, 8 bit data of 8085 microprocessor.
4. What is time delay? Calculate the maximum time delay for one register using 8085 instruction.
5. Write an assembly language program to find larger number between two 8-bit numbers. The two numbers are to be stored in memory location 2501H & 2502H and the output will be stored in memory location 2503H.
6. Explain maximum and minimum modes of 8086.
7. Write the difference between CISC and RISC processor.

3. Draw the pin diagram of 8085 and describe the function of each pin. (10)

4. Design a traffic light controller program with a neat block diagram using 8085 instruction. (10)

5. Explain memory organization- RAM structure, SFR in 8051 microcontroller. (10)

6. Draw the BUS architecture of 8085 and explain the function of address bus, data bus and control bus. (10)

**Model question (Set-2)**

**MICROPROCESSOR AND MICROCONTROLLER**

**Semester-4TH SEM Branch-E&TC/IT**

**F.M- 80**

**1. Answer All. (2\*10)**

1. What is the function of stack pointer and program counter in 8085?
2. What is the difference between microprocessor and microcontroller?
3. Name different types of hardware interrupts in the ascending order on the basis of priority in 8085.
4. Why interfacing is required in microprocessor?
5. What is the function of LDAX and STAX instruction?
6. Define machine cycle and fetch cycle.
7. Which instructions are used in stack pointer for puffing data and extracting data in 8085?
8. Name the different flags available in 8086.
9. What are the modes in which 8086 can operate?
10. Name the special function registers available in 8051.

2. Answer any six question. (5\*6)

1. What are different addressing modes available in 8085 and explain with examples?
2. Draw the functional block diagram of 8255 and explain each block.
3. Draw timing diagram of MOV B, M instruction.
4. What are the difference between memory mapping and I/O mapping?
5. With neat diagram explain the each bit position of flag register of Intel 8085.
6. Discuss the different addressing modes of 8051 with suitable examples.
7. Write an assembly language program to find sum of a series of two 8-bit numbers and sum is also 8-bit.

3. With a neat block diagram explain the architecture of 8085 microprocessor.(10)

4. Draw the functional block diagram of 8051 and explain the function of each block. (10)

5. Explain the function of each registers in register organization of 8086 microprocessor. (10)

6. Write an assembly language program to find the largest number in a data array using 8085 instructions. (10)