

**SESSIONAL ONE EXAMINATION
B.TECH, December- 2021**

Paper Code: ESC-CSE-301G

Subject: MICROPROCESSOR

Time: Two Hours

Max. Marks: 30

Note: Attempt any *three* questions including Q.no. 1 which is compulsory. All questions carry equal marks.

Q.1. Attempt all parts of Q.1. each part is of 2 marks:- (2×5=10)

- i. Draw the Flag register of 8085 microprocessor.
- ii. Discuss the register organization of 8086 microprocessor.
- iii. Assume that 24H is stored memory location 2200H and 02H is stored in memory location 2201H. What is value stored at memory 2300H and 2301H when the following program is executed on 8085 microprocessor.

```
LDA 2200H
MOV E , A
MVI D , 00H
LDA 2201H
MOV C , A
LXI H , 0000H
BACK: DAD D
      DCR C
      JNZ BACK
      SHLD 2300H
      HLT
```

- iv. Differentiate between 8085 and 8086 microprocessor.
- v. Define Opcode and Operand. Specify the opcode and operand in the instruction MOV M , A.

Q.2. (a) Write an 8085 assembly language program to find the smallest number from a given unordered array of 8-bit numbers, stored in the locations starting from a known address. (10)

OR

(b) Explain the working of 8085 microprocessor with the help of block diagram and also explain about the function of each block. (10)

Q.3. (a) Draw and explain the architecture of 8086 microprocessor. Define pipelining and how it is implemented in 8086 microprocessor. (10)

OR

(b) What are addressing modes? How many addressing modes are there in 8085 microprocessor? Explain each one of them with suitable examples. (10)