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Total No. of Pages : 02

Total No. of Questions : 09

**B.Tech. (CSE / EE / ME) (Sem.-7)**  
**MICROPROCESSOR IN AUTOMATION**

**Subject Code : BTME611-18**

**M.Code : 90479**

**Date of Examination : 09-01-2023**

**Time : 3 Hrs.**

**Max. Marks : 60**

**INSTRUCTIONS TO CANDIDATES :**

1. **SECTION-A is COMPULSORY** consisting of TEN questions carrying TWO marks each.
2. **SECTION-B** contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.
3. **SECTION-C** contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.

**SECTION-A**

**1. Write briefly :**

- a) What is masking and why is it required?
- b) Explain the instruction format of 8085.
- c) Differentiate I/O mapped and Memory mapped I/O.
- d) Specify the opcode and operand in the instruction MOV H, L.
- e) What is meant by instruction cycle?
- f) Write an assembly language program to add two 8 bit numbers stored at address 2050 and address 2051 in 8085 microprocessor.
- g) Convert  $(E48A)_{16}$  to octal code.
- h) Explain the function of HOLD and READY signals with example.
- i) What shortcomings does an SR flip-flop possess?
- j) Compare CALL and JMP instruction of 8085.

### SECTION-B

2. Explain priority interrupts of 8085.
3. Design a multiplexer that can be used to generate the logical expression :  $Z = AB + BC$
4. How will you convert R-S flip flop into J-K flip flop? Also discuss characteristic table of J-K Flip flop.
5. Draw and explain the interfacing of any DAC with 8085. Also show the program to support this interfacing.
6. What is the function of control word register in 8255? Explain with an example.

### SECTION-C

7. Draw and explain pin configuration of 8085 microprocessor.
8. Explain **any three** modes of operations used in programmable timers 8253.
9. What is the significance of addressing modes? Discuss various addressing modes for 8085 microprocessor with suitable examples for each mode.

**NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.**