Roll No. | | | | | | | | | | | | | Total No. of Pages : 02

Total No. of Questions : 09

B.Tech. (Electronics & Communication Engineering) (Sem.–4)

MICROPROCESSORS AND MICROCONTROLLERS

Subject Code : BTEC-402-18

M.Code : 77566

Date of Examination : 13-05-2024

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) List the 16 - bit registers of 8085 microprocessor.

(b) Describe the function of IO/M signal in the 8085 microprocessors.

(c) Define opcode and operand.

(d) Draw the data memory organization in 8051.

(e) MOV R4, R7 is invalid. Why?

(f) State the function of RS1 and RS0 bits in the flag register of 8051.

(g) List the various Interrupt sources in 8051.

(h) Name any two logical instructions in 8051.

(i) What do you mean by interfacing?

(j) Differentiate between SRAM and DRAM.

SECTION-B

2. Describe various addressing modes in 8085 with the help of suitable examples.

3. What is the difference between microprocessor and microcontroller?

4. Explain the following instructions of 8051 with the help of suitable examples:

   INC, CJNE, RL, ADDC, JNC

5. Describe the ADC interfacing with 8051 microcontroller using a suitable diagram.

6. Discuss the handling of various interrupts in 8085.

SECTION-C

7. Describe the pin diagram of 8051 microcontroller in detail.

8. Explain the interfacing of LCD with Microcontroller in detail.

9. **Write a short note on the following :**

   a) Virtual memory

   b) Stack

   c) timers

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.