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

Total No. of Questions : 09

B.Tech. (CE/CSE/EE/FT) (Sem–6)

MICROPROCESSORS AND MICROCONTROLLERS

Subject Code : BTEC-402-18

M.Code : 79382

Date of Examination : 14-06-2025

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) Mention 8 bit, 16 bit, 32 bit microprocessors.

b) Define the multiplexing between address and data in 8085 microprocessor.

c) What do you mean by stack?

d) Differentiate between RISC and CISC architectures.

e) Show register bank of 8051 microcontroller.

f) Draw structure of SRAM.

g) What is the significance of interrupts?

h) Write loop instruction example.

i) Give the various types of keyboards.

j) Define matrix keypad.

SECTION - B

2. Explain addressing modes of 8085 microprocessor with examples.

3. Draw and explain PSW register and flag bits of 8051 microcontroller.

4. Classified various types of interrupts of 8051 microcontroller.

5. Design a code to interface LCD with 8051 microcontroller.

6. Write a program in assembly language to find 2's complement in 8085 microprocessor.

SECTION - C

7. Draw and explain architecture of 8085 microprocessor.

8. Explain the coding of 8051 microcontroller interfacing with external memory.

9. Design ROM, RAM, virtual memory and cache memory mentioning their functions.

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.