

Roll No.

Total No. of Pages : 02

Total No. of Questions : 09

B.Tech. (ECE) (PIT) (Sem.-4)
MICROPROCESSORS AND MICROCONTROLLERS

Subject Code : UC-BTEC-402-19

M.Code : 79984

Date of Examination : 05-07-22

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 various applications of Microprocessors.
- b) Explain the concept of Cache memory.
- c) Enlist the salient features of 8051.
- d) Explain the need of timing and control unit of microprocessor.
- e) Describe the bus architecture of 8085.
- f) What the functions of ALE, and RST pins of 8051.
- g) List advantages of Assembly language.
- h) What are interrupts? List various types of interrupt signals.
- i) How many address lines are required to address two ROM chips of $1k \times 8$ each.
- j) Write short note on '*History of Microprocessors*'.

SECTION-B

2. Discuss the advantages of microcontroller based systems over microprocessor based systems.
3. Discuss various addressing modes of 8085 Microprocessor.
4. What are the various status flags provided in 8085? Discuss their roles.
5. Differentiate between RISC and CISC architectures.
6. Write a program to add the values of location 50H and 51H and store the result in locations 52H and 53H.

SECTION-C

7. Draw and explain the architecture of 8051 Microcontroller.
8. Explain functions of each and every pin of 8085 Microprocessor.
9. How stepper motor can be interfaced with Microcontroller.

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.