

Roll No.

Total No. of Pages :02

Total No. of Questions : 07

**BCA,DEP (Sem.-4)**  
**MICROPROCESSORS & MICROCONTROLLERS**

Subject Code :BSBC-402

M.Code :10067

Date of Examination : 07-07-22

Time : 3 Hrs.

Max. Marks : 60

**INSTRUCTION TO CANDIDATES :**

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains SIX questions carrying TEN marks each and a student has to attempt any FOUR questions.

**SECTION-A**

**1. Answer briefly :**

- (a) Distinguish between arithmetic and logic operations.
- (b) How the CS flag may be reset?
- (c) What is the difference between logical and arithmetic instructions?
- (d) What is an addressing mode?
- (e) Name various registers in 8085.
- (f) What is Program status word (PSW)?
- (g) What is the difference between instructions and machine cycle?
- (h) What is the difference between CALL and JMP instruction?
- (i) What is a ROM based Microcontroller?
- (j) What is the need for interrupts?

## SECTION-B

2. What is a microprocessor? Why is it so called? How is it different from a CPU? Explain its history and applications.
3. Distinguish between RISC and CISC processors.
4. Discuss the features of the 8257 interrupt controller.
5. (a) What are the differences between :
  - i) Program counter and the memory address register.
  - ii) Accumulator and the instruction register.(b) Explain the purpose of the following instructions :
  - i) EI
  - ii) DI
  - iii) STC
  - iv) RRC
  - v) RAR
6. (a) Explain the DMA operation in detail.  
(b) Distinguish between microprocessor and microcontroller.
7. Draw and explain the functional diagram of 8051.

**NOTE : Disclosure of identity by writing mobile number or making passing request on any page of Answer sheet will lead to UMC against the Student.**