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

Total No. of Questions : 09

M.C.A. (Sem.–4)

MICROPROCESSOR

Subject Code : MCA-404

M.Code : 90001

Time : 3 Hrs. **Max. Marks : 60**

INSTRUCTIONS TO CANDIDATES :

1. **SECTIONS-A, B, C & D contains TWO questions each carrying TEN marks each and students has to attempt any ONE question from each SECTION.**
2. **SECTION-E is COMPULSORY consisting of TEN questions carrying TWENTY marks in all.**

SECTION-A

1. Draw the block diagram of 8085 microprocessor showing all units and signals.
2. a) Explain the register organization of 8085 microprocessor.

   b) Discuss the instruction format of 8085 instructions.

SECTION-B

3. Explain the purpose of the following instructions :

   a) EI

   b) DI

   c) STC

   d) RRC

   e) RAR

4. Compare RISC Vs CISC Processors.

SECTION-C

5. Draw the pin diagram of 8086 microprocessor and explain the function of each pin.
6. a) Explain the following 8085 instructions :

   SIM,RIM, RST 7, RAR, PCHL

   b) Write an assembly language program to swap two numbers.

SECTION-D

7. What is DMA operation? Explain the architecture of 8237 DMA controller.

8. How the Programmable Interrupt controller may be interfaced to a microprocessor.

SECTION-E

9. Write briefly :

(a) What is auxiliary carry?

(b) What is the purpose of DAD instruction?

(c) What are vectored interrupts?

(d) What is the difference between arithmetic and logical shift instructions?

(e) What are pseudo instructions?

(f) Name the 8085 instructions using stack?

(g) What is the difference between instruction and machine cycle?

(h) Who takes care of the control of the buses in DMA?

(i) What is the purpose of XCHG instruction?

(j) Explain the structure of delay loop.

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.