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

Total No. of Questions : 07

BCA (2011 & Onwards) (Sem.–4)

MICROPROCESSORS & MICROCONTROLLERS

Subject Code : BSBC-402

Paper ID : [B0241]

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. Write briefly :

a) Define Instruction cycle.

b) What is the use of flags in microprocessor?

c) Explain ALE.

d) Branching operations.

e) Write a program in assembly language to add two nos.

f) Synchronous serial communication *vs.* Asynchronous serial communication.

g) What are various priority modes available in 8259 interrupt controller?

h) Explain various software interrupts of 8085.

i) Internal and external memories.

j) Explain cycle stealing mode.

SECTION-B

2. Explain architecture of 8085 with diagram.

3. Explain Instruction cycle and timing diagram of memory read/write operations.

4. a) Discuss the operations performed by the following 8085 instructions :

   i) MVI A, DATA

   ii) JMP 2085H

   iii) DAA

   iv) LDA 1234H

   v) ADC B

   b) Write a program in assembly language to multiply a number by 8.

5. Explain the architecture of 8051 with pin diagram.

6. Discuss the operation and architecture of 8284.

7. Explain the use of DMA controller with diagram.