

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**BE - SEMESTER-IV EXAMINATION – SUMMER 2016**

**Subject Code:140701**

**Date:30/05/2016**

**Subject Name:Microprocessor And Interfacing**

**Time:10:30 AM to 01:00 PM**

**Total Marks: 70**

**Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1** (a) Draw the functional block diagram of 8085 microprocessor & explain in Brief. **07**  
(b) Discuss various addressing modes with suitable Examples. **07**
- Q.2** (a) Describe the De-multiplexing of address bus in 8085. **07**  
(b) Draw the timing diagram for the instruction MVI A, 32H at memory location 2000H and 2001H **07**
- OR**
- (b) Explain flag register of 8085 microprocessor. **07**
- Q.3** (a) Compare memory mapped I/O with peripheral mapped I/O **07**  
(b) Explain PUSH and POP instructions. **07**
- OR**
- Q.3** (a) List out various arithmetical and logical instruction of 8085 microprocessor. **07**  
Explain any two with suitable example.  
(b) Write an assembly language program to load any no in Register C. Find no of 1's and 0's. Store no. of 1's in reg. D and no of 0's in register E. **07**
- Q.4** (a) Draw & explain block diagram of 8259. **07**  
(b) With the help of block diagram explain the internal architecture of IC 8255 and describe its working in BSR mode. **07**
- OR**
- Q.4** (a) Write short notes on 8279 Keyboard / Display interface. **07**  
(b) Describe various modes of 8253 timer. **07**
- Q.5** (a) Total 16 data stored at memory location 4050h to 405Fh. Write program to copy these data into memory location 3000h to 300Fh. **07**  
(b) Explain successive approximation type ADC. **07**
- OR**
- Q.5** (a) What is conditional & unconditional branching? Illustrate the answer with suitable example. **07**  
(b) Explain RIM & SIM instructions. **07**

\*\*\*\*\*