

SE sem-IV (CBSGs) ETRX - up and peripherals  
Microprocessor and peripherals

8/12/16

**Q.P. Code : 548002**

**( 3 Hours)**

**[ Total Marks : 80**

- N.B. :** (1) Question No.1 is **compulsory**  
(2) Attempt any **three** questions out of remaining **five** questions.  
(3) Assume any suitable data wherever required and justify the same.

**Q1. Attempt the following.**

**20**

- Compare architectural features of 8085 and 8086.
- What is multiprocessor system? Give advantages.
- Explain memory R/W cycle of any processor.
- What is interrupt? Give its application

**Q2 a) Describe architecture of 8086.**

**10**

**b) Explain 8237-DMAC and its interfacing.**

**10**

**Q3 a) Explain various addressing modes of 8086 with examples.**

**10**

**b) What is 8255-PPI? Draw interfacing of 8255 with 8085/86.**

**10**

**Q4 a) Write an 8086 assembly language program for ordering (ascending or descending) a sequence of 5 numbers.**

**10**

**b) What is need of bus arbitration? Explain 8289.**

**10**

**Q5 Interface 64 K bytes of program memory (ROM) and 12 K bytes of data memory (RAM), 8bit I/O ports with 8086. Draw detailed circuit diagram, Memory map, I/O map. (Assume 8K capacity devices)**

**20**

**Q6 Write short notes on.**

**20**

- Loosely coupled system.
- Segmentation in 8086: usages and challenges.
- Nested interrupts using 8259PIC.