

Question Bank

a. Interfacing with RAM's and ROM's

- Q1. What are the differences in interfacing RWMs while 8086 is in minimum and maximum modes?
- Q2. Sketch and explain the interface of 32K x 16 RWMs using a decoder in minimum mode. What is the maximum access time of ROMs such that it does not require wait states when 8086 operates at 8 MHz?
- Q3. Sketch and explain the timing diagrams in the above interface Question 2
- Q4. Sketch and explain the 8086 bus activities during write machine cycle

b. Interfacing with peripheral IC's like 8255 etc.,

- Q1. What are the steps in interfacing peripherals with the micro processor?
- Q2. Sketch and explain the interface of PPI 8255 to the 8086 microprocessor in minimum mode. Interface 4 7 segment LEDs to display as a BCD counter
- Q3. In the above question Q2 interface two keys UP and DOWN to the PPI. Write an 8086 assembly program segment such that when UP is pressed the counter counts up every second. Similarly when DOWN key is pressed the counter decrements every second
- Q4. Sketch and explain the interface of 8279 to the 8086 microprocessor in minimum mode. Interface 8x8 key pad and 16x 7 Seg LED display. Write an 8086 assembly program to read the key codes of keys and display -**NPTEL-INDIA**
- Q5. Sketch and explain the interface of PIT 8254 to the 8086 microprocessor in minimum mode. Cascade two counters in the PIT. Write a program segment two get one minute delay