

CSE-3105 (Microprocessors and Micro-controller)

Date: 25 June 2020

Topics of Lecture 18, Lecturer 19 and Lecture 20:

Q1. What are the responses when an interrupt occurred in 8086 microprocessor? Explain with figure.

Q2. Write the importance of Priority Interrupt Controller (PIC).

Q3. Draw the internal block diagram of 8259A PIC.

Q4. Explain the working procedure of 8259A Priority Interrupt Controller.

Q5. Explain the working procedure of Interrupt Request Register (IRR), Interrupt Mask Register (IMR), Interrupt Service Register (ISR) and Priority Resolver of 8259A PIC.

Q6. Draw the circuit diagram of the connection between 8086 microprocessor and 8259A PIC.

Q7. What are the responses of 8086 microprocessor of following conditions? Consider fixed priority mode for the operation.

(a) If interrupts occurs in both IR0 pin and IR2 pin at the same time.

(b) If interrupt occurs in IR2 pin when running the operation of IR2 pin.

(c) If interrupt occurs in IR2 pin after executing the operation of IR2 pin.

Q8. Why cascaded connection is required in 8259A PICs for handling multiple interrupts? How many maximum interrupts can be handled in cascaded connection in 8259A PICs?

Q9. Draw the circuit diagram of cascaded connections of 8259A PIC.

Q10. Explain the working procedure of cascaded connections of 8259A PIC.