

# CSE360: Computer Interfacing

## Assignment 2

Total Marks: 10 (Marks are indicated in third brackets after each question)

### Question 1 (CO3) [Marks: 5]

1. Suppose, a peripheral device Keyboard is connected to Port A and a monitor is connected to Port B of the 82C55 PPI.

- Write the Control Bits to configure the 82C55 IC.
- Illustrate** a diagram showing the configuration of the 82C55 IC for the above statement. (Hint: specify the configuration of Port A, Port B and Port C pins)
- Suppose you pressed the 'B' key on the keyboard. Write down the steps that will take place in the 82C55 IC. **Illustrate** a timing diagram accordingly.
- Now, you want to see the 'B' in the monitor, **explain** the steps that will take place in the 82C55 IC. Draw a timing diagram accordingly.

### Question 2 (CO3) [Marks: 5]

2. Assume you have connected a mouse to Port B and an Ipad to port A of the 82C55 PPI.

- In which mode Port A and B are working? Also **write** the control word in which the 82C55 should be programmed.
- Draw a diagram showing the configuration of the 82C55 IC (Hint: specify the configuration of Port A, Port B and Port C pins).

Now suppose you have tapped on your screen to send data to microprocessor and after a while the microprocessor sends a picture to the device which pops out and opens.

- Write** the sequences and process that takes place between the 82C55 and Ipad. You should mention the sequence in which the signals are generated and the pins that are involved in the process.
- Draw** a timing diagram to support your explanation.