CSE-315

Name: Partha Chakraborty

Student ID: 1305117

Ans. to the Q. no - 01

Given,

baud rate = 15.25832342

Clock frequency = 8 MHz = 8×10^6 Hz

Value of UBRR = $\frac{8 \times 10^6}{16 \times 15.25832342} - 1$

$= 32767.999$

≈ 32768

$= (32768)_{10}$

$= (1000\ 0000\ 0000\ 0000)_2$

But the MSB of UBRRH must be 0 when setting baud rate as UCSRC and UBRRH share the same location. In that condition the nearest value of UBRR will be $(32767)_{10}$ or $(0111\ 1111\ 1111\ 1111)_2$

Now baud rate will be

$$\text{baud rate} = \frac{8 \times 10^6}{16\,(32767+1)}$$

$$= 15.258789\,06$$

Ans. to the qu. no-02

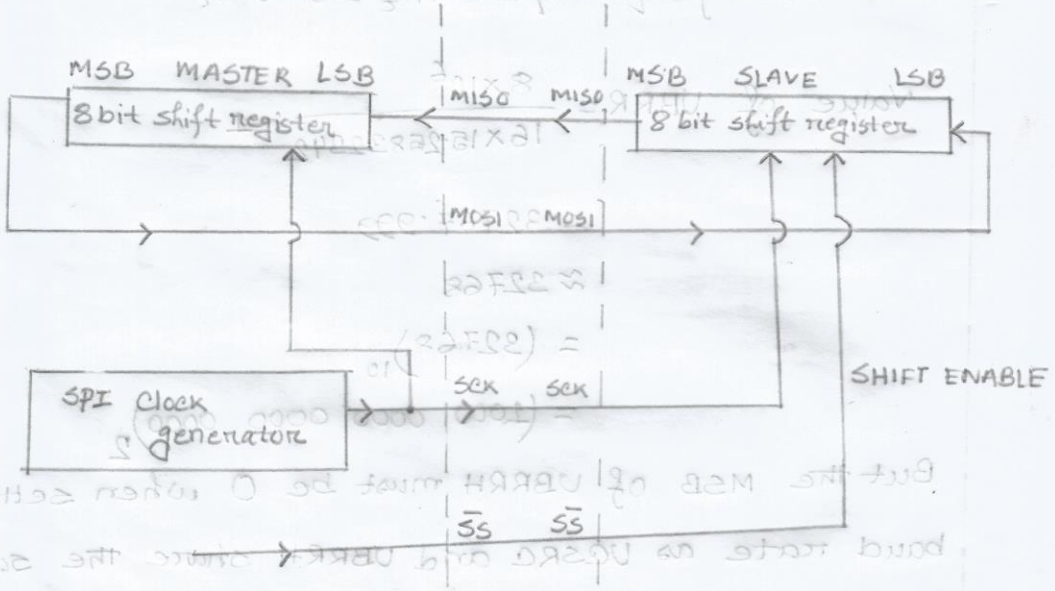

Fig. SPI master-slave interconnection