Assignment – 03

(1) Write a program to load the data byte A8H in register C. Mask the high-order bits(D7-D4), and display the low-order bits (D3-D0) at an output port.

(2) Write a program to load the data byte 8EH in register D and F7H in register E. Mask the high-order bits (D7-D4) from both the data bytes, Exclusive-OR the low-order bits (D3-D0) and display the answer.

(3) Write a program to load the bit pattern 91H in register B and 87H in register C. Mask all the bits except D0 from registers B and C.

(4) Write a program to clear the CY flag, to load number FFH in register B, and increment B. If the CY flag is set, display 01 at the output port, otherwise, display the contents of register B.

(5) Write a program to mask lower bit of an 8-bit number.

(6) Write a program Load two unsigned numbers in register B and register C, respectively. Subtract C from B. If the result is in 2's complement, convert the result in absolute magnitude and display it at PORT 1, otherwise, display the positive result. Execute the program with the following sets of data.

Set1:B=42H,C=69H

Set2:B=69H,C=42H

Set 3: B=F8H, C = 23H