**;Write a program to make a clock. Use port A, B and C to display second, minute and hour respectively. The clock should be 24 hours basis.**

**LXI H,0101H ;Port A = Second, Port B = Minute, Port C = Hour**

**MVI C,00H ;With Timer**

**MVI A,00H**

**OUT 40H**

**OUT 41H**

**OUT 42H**

**L1: CALL L7**

**MOV A,C ;C stores seconds**

**OUT 40H**

**INR C**

**CPI 3BH ;3BH = 59D**

**JZ L2**

**JMP L1**

**L2: MOV A,L ;L stores minute**

**INR L**

**CPI 3BH ;3BH = 59D**

**JZ L3**

**MVI C,00H**

**MOV A,C**

**OUT 40H**

**MOV A,L**

**OUT 41H**

**JMP L1**

**L3: MOV A,H ;H stores hour**

**INR H**

**OUT 42H**

**CPI 23H ;3BH = 59D**

**JC L4**

**MVI C,00H**

**MOV A,C**

**OUT 40H**

**MVI L,00H**

**OUT 41H**

**MVI L,00H**

**JMP L1**

**L4: MOV A,L**

**CPI 3BH ;3BH = 59D**

**JZ L5**

**JMP L1**

**L5: MOV A,C**

**CPI 17H ;17H = 23D**

**JZ L10**

**JMP L1**

**L7: LXI D,0FFFFH ;Approx 0.5 sec delay**

**L8: DCX D**

**MOV A,D**

**ORA E**

**JNZ L8**

**LXI D,0FFFFH ;Approx 0.5 sec delay**

**L9: DCX D**

**MOV A,D**

**ORA E**

**JNZ L9**

**RET**

**L10: HLT**

**;Write a program to make a clock. Use port A, B and C to display second, minute and hour respectively. The clock should be 24 hours basis.**

**LXI H,0101H ;Port A = Second, Port B = Minute, Port C = Hour**

**MVI C,00H ;Without Timer**

**MVI A,00H**

**OUT 40H**

**OUT 41H**

**OUT 42H**

**L1: MOV A,C ;C stores seconds**

**OUT 40H**

**INR C**

**CPI 3BH ;3BH = 59D**

**JZ L2**

**JMP L1**

**L2: MOV A,L ;L stores minute**

**INR L**

**CPI 3BH ;3BH = 59D**

**JZ L3**

**MVI C,00H**

**MOV A,C**

**OUT 40H**

**MOV A,L**

**OUT 41H**

**JMP L1**

**L3: MOV A,H ;H stores hour**

**INR H**

**OUT 42H**

**CPI 23H ;3BH = 59D**

**JC L4**

**MVI C,00H**

**MOV A,C**

**OUT 40H**

**MVI L,00H**

**OUT 41H**

**MVI L,00H**

**JMP L1**

**L4: MOV A,L**

**CPI 3BH ;3BH = 59D**

**JZ L5**

**JMP L1**

**L5: MOV A,C**

**CPI 17H ;17H = 23D**

**JZ L10**

**JMP L1**

**L10: HLT**