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;EXPERIMENT_3D: WRITE AN ALP TO INTERFACE DAC AND GENERATE SINE WAVEFORM
;NAME: ANIL RAJPUROHIT
;ROLL N0: 312046
;BATCH: B2
;DATE OF PERFORMANCE:1/8/2018

            ORG 0000H

            CLR A                   ;clr accumulator
        L1: MOV DPTR,#SINEWAVE      ;taking sine wave content in DPTR
            MOV R0,#72
            CLR P0.7                ;enable the dac wr line
        L2: MOVC A,@A+DPTR          ;load content in accumulator
            MOV P1,A                ;load data in port 1
            CLR A
            INC DPTR                ;taking next content
            DJNZ R0,L2
            SJMP L1                 ;continuous waveform


            ORG 0100H
SINEWAVE:   DB 128,138,150,160,170,180,191,201,209,217,224,231,238,242,246,250,253,254
            DB 255,254,253,250,246,242,238,231,224,217,209,201,191,181,170,160,150,115
            DB 128,117,106,96,84,74,64,55,46,38,31,25,18,13,9,5,2,1,0
            DB 0,1,2,5,9,13,18,25,31,38,46,55,64,74,84,96,106,117,126

            END
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