Program 10

Program to implement square wave generation using DAC

PROGRAM			ALGORITHM
START:	MVI	A,80	STEP 1:Write the control word in to the
	OUT	CWR	PPI of the kit
RPT:	XRA	A	
	OUT	P_a	
	OUT	P_b	STEP 2: Pass the data's for square wave
	CALL	OFFCOUNT	towards PPI words
	MVI	A,FF	
	OUT	P_a	
	OUT	P_b	STEP 3: Pass the alternative data's for
	CALL	ONCOUNT	LOW & HIGH alternatively
	JMP	RPT	with proper delay according to
	HLT		the duty cycle given
ONCOUNT:	LXI	H,08	
LOOP:	DCX	H	
	MOV	A,L	S TEP 4: Keep the processor in a
	ORA	H	continuous loop till termination
	JNZ	LOOP	
	RET		
OFFCOUNT:	LXI	H,03	STEP 5: Terminating point
LOOP1:	DCX	H	
	MOV	A,L	
	ORA	H	
	JNZ	LOOP	
	RET		

NOTE:

- Store the program starting from F000H
- Connect the interfacing unit to the kit
- Execute the program
- Observe the waveform on the CRO

PORT ADDRESS:

FOR P3		FOR P4	
PORT	ADDRESS	PORT	ADDRESS
PORT A	D8	PORT A	F0
PORT B	D9	PORT B	F1
PORT C	DA	PORT C	F2
CWR	DB	CWR	F3

OUT PUT WAVEFORM: