EXPERIMENT - 2

EXERCISE - 2

; Add two 32-bit numbers available in memory locations starting

; from 3050h and store the result from memory location 3080h.

; 32-BIT IS 8-BYTES LONG

ORG 0000H ; ORIGINATE

AJMP START ; JUMP TO THE LABEL START

START:

MOV DPTR, #3050H ; STARTING LOCATION.

MOV R2, #08H ; COUNT OF THE BYTES.

MOV R0, #00H ; SUM FOR THE ACCUMULATOR.

MOV R1, #30H ; STARTING LOCATION OF THE RESULT.

MOV A, R2 ; MAKE A FIXED COPY OF THE NUMBER OF BYTES

MOV R3, A ; MOVE TO R3

UP:

ADDC R0, A

DJNZ R2, UP

INC DPTR

INC DPTR

INC DPTR

INC DPTR

INC DPTR

INC DPTR

INC DPTR

INC DPTR

MOVX A, @DPTR

STORE:

MOV DPTR, #3080H

MOV @DPTR, A

MOV A, B

INC DPTR

MOV @DPTR, A