Algorithm

The location of 1st number is moved into Source Index (SI) & location to store the product is stored in Destination Index (DI). The 1st number is moved into AX. Then SI is incremented twice & the 2nd number is moved from the location in SI into BX. AX is multiplied with BX & the result is stored in DX:AX. DH is moved to location in DI. DI is incremented. DL is moved to location in DI. Again DI is incremented. AH is moved to location in DI. Again DI is incremented. AL is moved to location in DI. Then the program ends with the HLT instruction.

Input

0600/01	0602/03
F F	F F

0604/05	0606/07
F F	F F

Output

0500/01	0502/03	0504/05	0506/07
F F	F E	0 0	0 1

Experiment Name / No.: 11. MULTIPLICATION OF TWO 16-BIT NUMBERS

Camlin / Page No. 37

Date 25 / 02 / 2020

Aim

To perform the multiplication of two 16-bit numbers using 8086 trainer kit.

Program

Address	Instruction	Comment
0400	MOV DI, 0500	Set destination index to 0500H
0403	MOV SI, 0600	Set source index to 0600H
0406	MOV AX, [SI]	Move the 1st number from SI to AX
0408	INC SI	
0409	INC SI	
040A	MOV BX, [SI]	Move the 2nd number from SI to BX
040C	MUL BX	Multiply the 2 numbers
040E	MOV [DI], DH	Move DH to destination index
0410	INC DI	
0411	MOV [DI], DL	Move DL to destination index
0413	INC DI	
0414	MOV [DI], AH	Move AH to destination index
0416	INC DI	
0417	MOV [DI], AL	Move AL to destination index
0419	HLT	

Result

Performed the multiplication of two 16-bit numbers using 8086 trainer kit

Teacher's Signature: