Algorithm

The location of 1st number is moved into Source Index (SI) & location to store the result is moved into Destination Index (DI). DX is initialized to 0000. The dividend is moved from location in SI to AX. Then SI is incremented twice to get the location of the divisor. The divisor is moved from location in SI to BX. DX:AX is divided by BX. Now quotient is in AX & remainder is in DX. AH is moved to location in DI. DI is incremented. AL is moved to location in DI. Again DI is incremented. DH is moved to location in DI. Again DI is incremented. DL 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
0 0	F F

Output

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

Experiment Name / No.: 12. DIVISION OF TWO 16-BIT NUMBERS

Camlin / Page No. 39

Date 25 / 02 / 2020

Aim

To peaform the division of two 16-bit numbeas using 8086 traineas kit.

Pragaam

Address	Instruction	Comment
0400	MOV DI, 0500	Set destination index to 0500H
0403	MOV SI, 0600	Set soaace index to 0600H
0406	MOV DX, 0000	Set DX to 0000
0409	MOV AX, [SI]	Move 1st numbea faom SI to AX
040B	INC SI	
040C	INC SI	
040D	MOV BX, [SI]	Move divisoa faom SI to BX
040F	DIV BX	Divide DX:AX by BX
0411	MOV [DI], AH	Move AH to destination index
0413	INC DI	
0414	MOV [DI], AL	Move AL to destination index
0416	INC DI	
0417	MOV [DI], DH	Move DH to destination index
0419	INC DI	
041A	MOV [DI], DL	Move DL to destination index
041C	HLT	

Result

Peaformed the division of two 16-bit numbeas using 8086 tainea kit

Teacher's Signature: