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NAME :- DIVYA PRAVIN PATIL
CLASS :- SE COMPUTER
ROLL NO :- 45
BATCH :- B2
EXPERIMENT NO :- 6
TITLE:- MULTIPLICATION PROGRAM USING FAR PROCEDURE.
AIM :- Write an 8086 Assembly Language Program for Multiplication
of two 8bit HEX numbers using FAR Procedure.

DATA SEGMENT
        NO1 DB 03H
        NO2 DB 05H
        HEX_CHART DB '0123456789ABCDEF'
        LSB_OF_RESULT DB ?
        MSB_OF_RESULT DB ?
        H_ATTACH DB 'H'
        MSG DB 'RESULT IS :-$'
DATA ENDS

CODE SEGMENT
        INT 21H ASSUME CS:CODE,DS:DATA

        MOV AX,DATA
        MOV DS,AX

        LEA DX,MSG
        MOV AH,09H
        INT 21H

        MOV AL,NO1
        MOV BH,NO2
        MUL BH

        MOV MSB_OF_RESULT,AH
        MOV LSB_OF_RESULT,AL
        MOV AL,MSB_OF_RESULT
        AND AL,0F0H
        MOV CL,04H
        ROR AL,CL
        CALL FAR PTR DISP_CHAR

        MOV AL,MSB_OF_RESULT
        AND AL,0FH
        CALL FAR PTR DISP_CHAR

        MOV AL,LSB_OF_RESULT
        AND AL,0F0H
        MOV CL,04H
        ROR AL,CL
        CALL FAR PTR DISP_CHAR

        MOV AL,LSB_OF_RESULT
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        AND AL,0FH
        CALL FAR PTR DISP_CHAR

        MOV DL,H_ATTACH
        MOV AH,0H
        INT 21H

        MOV AH,4CH
        INT 21H
CODE ENDS

CODE_FAR SEGMENT
    ASSUME CS:CODE_FAR,DS:DATA

    DISP_CHAR PROC FAR

        MOV BX,00H
        MOV BL,AL
        MOV DL,HEX_CHART[BX]
        MOV AH,02H
INT 21H
        DISP_CHAR ENDP
CODE_FAR ENDS
END

OUTPUT :- RESULT IS :-0
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