NAME : Soham Manoj Pawar **Class : SE-IT**

ROLL NO :71 **MPL LAB**

EXPERIMENT 07

AIM :-

Program to move set of numbers from one memory block to another.

LO: (LO4): Program to move set of numbers from one memory block to another.

SOFTWARE :- Tasm Software

Theory :-

Instructions used in this program

MOV

The MOV instruction is the most important command in the 8086 because it moves data from one location to another.

Syntax: Mov source, destination

Example: Mov Ax,1234H

LEA

Used to load the address of operand into the provided register. LES − Used to load ES register and other provided register from the memory.

MOVSB

This instruction copies a byte or a word from a location in the data segment [DS:SI] to a location in the extra segment [ES:DI]. The offset in the data segment for the source is to be stored in the SI register and the offset for the destination in the extra segment is to be stored in the DI register.

LOOP

The loop instructions cause the microprocessor to execute a series of instructions repeatedly. Basically, the LOOP instructions are short jump instructions on a condition i.e., when the condition satisfies a short jump is taken whose destination or target address is in the range of -128 bytes to +127 bytes from the instruction address after LOOP instruction.

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INTERRUPT

int 21h means, call the interrupt handler 0x21 which is the DOS Function dispatcher. the "mov ah,01h" is setting AH with 0x01, which is the Keyboard Input with Echo handler in the interrupt.

Syntax: int 21H

Example: int 21H

Code :-

```
Assume cs:code,ds:data,es:extra
data segment
blk1 db 20H, 40H, 60H, 80H, 90H
data ends
extra segment
blk2 db 05 dup(?)
extra ends
code segment

start:
mov ax,data
mov ds, ax
mov ax,extra
mov es,ax
lea si, blk1
lea di, blk2
mov cx,05H
back:movsb
loop back
mov ah,4CH
int 21H
code ends
end start
```

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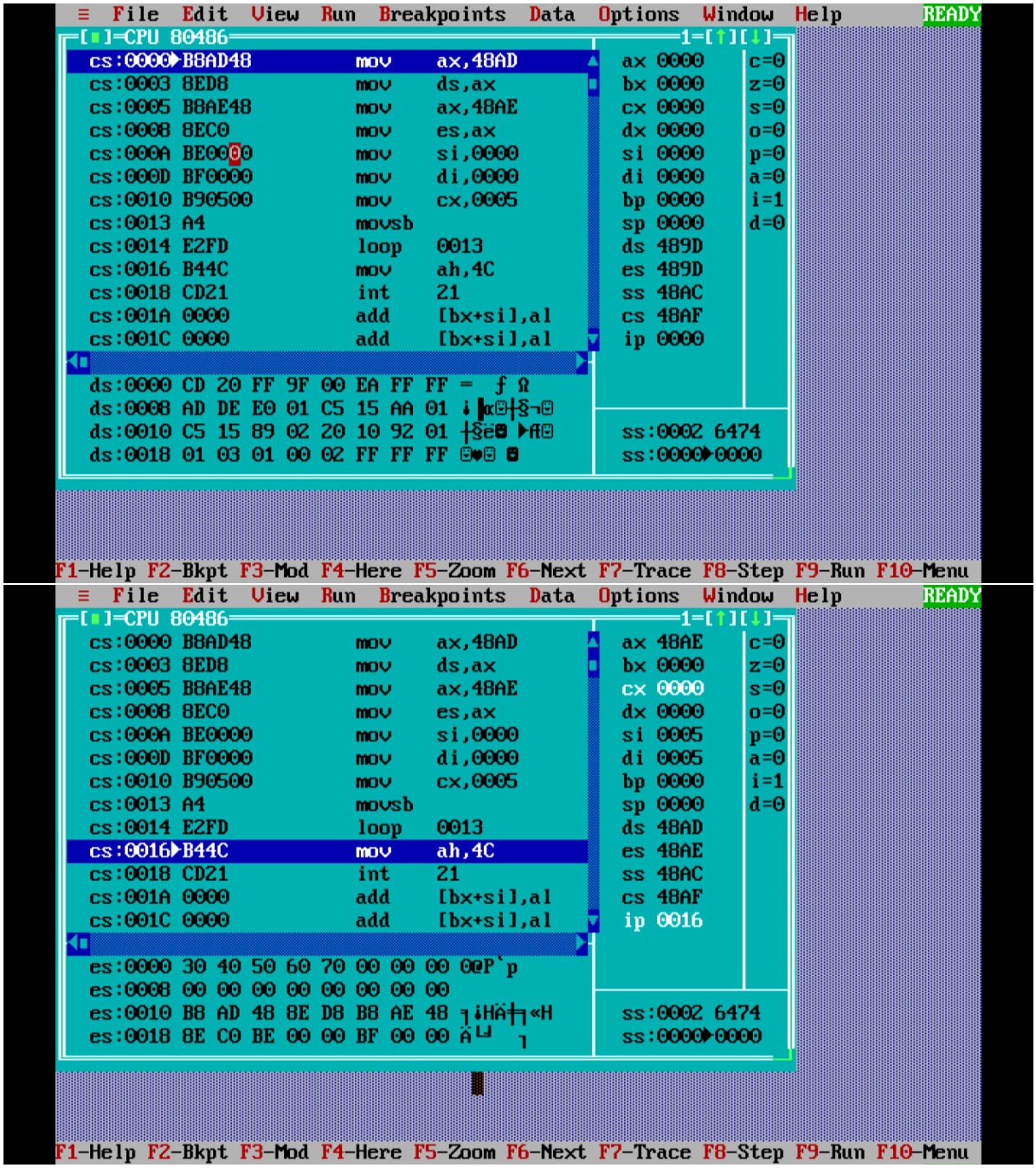
Output :-



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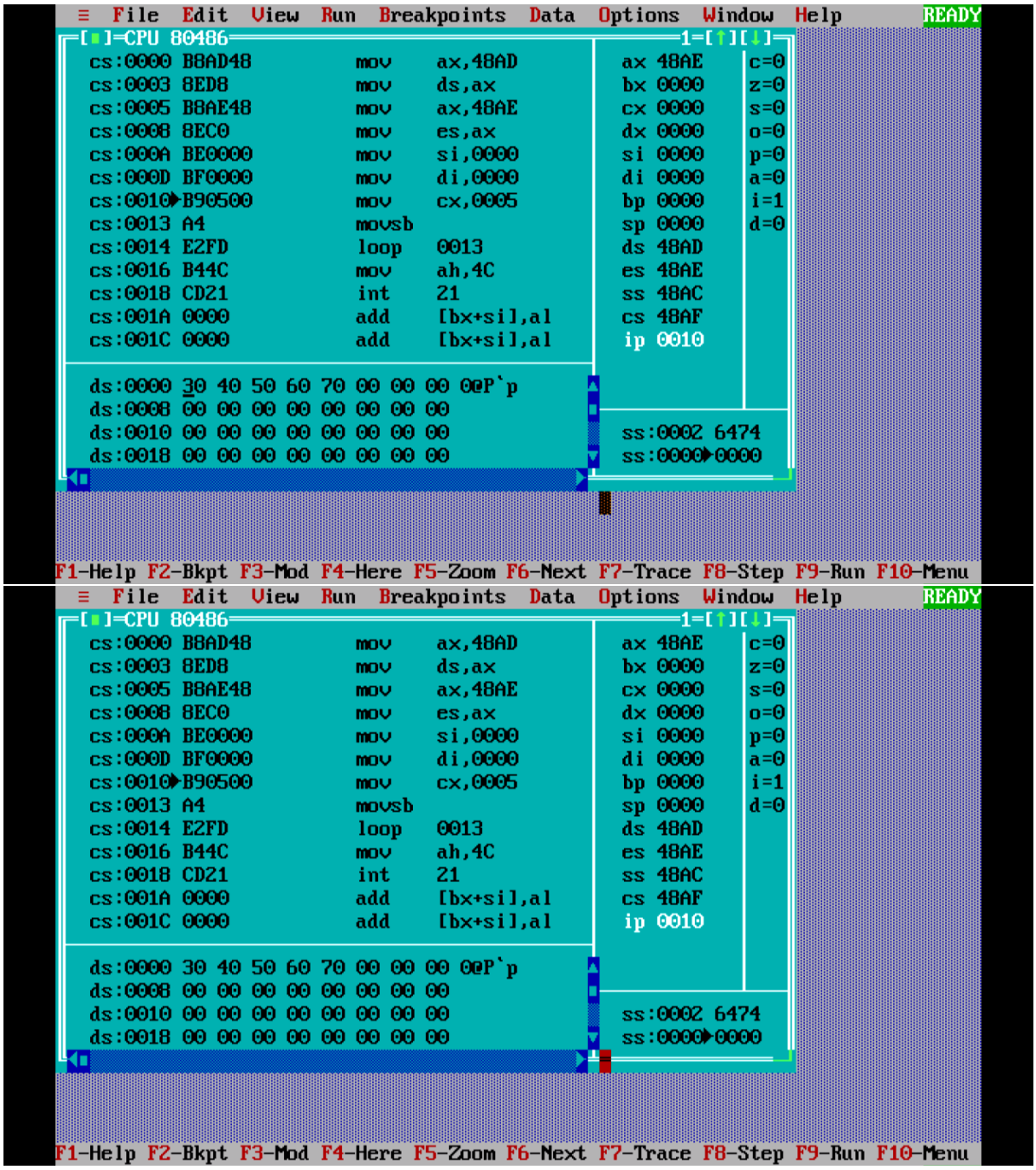

Conclusion : We learned to built a program on microprocessor using arithmetic and logical instructions and performed BCD addition on 16-bit values.