

8. Write an assembly language program for dividing two 16-bit data using 8086 processor.

AIM:

To perform division of two 16 bit numbers using 8086 processor.

ALGORITHM:

- 1) Start the program by loading HL register pair with address of memory location.
- 2) Move the data to a register(B register).
- 3) Get the second data and load into Accumulator.
- 4) Compare the two numbers to check for carry.
- 5) Subtract the two numbers.
- 6) Increment the value of carry .
- 7) Check whether repeated subtraction is over and store the value of product and carry in memory location.
- 8) Terminate the program.

PROGRAM:

```
lhd 2001
xchg
lhd 2003
mov a,d
mov b,h
mvi c,00h
loop: inr c
sub b
jnz loop
mov h,c
mov a,e
mov b,l
mvi c,00h
lp: inr c
sub b
jnz lp
mov l,c
shld 2005
hlt
```

