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## **Experiment No.5**

**<u>Aim</u>**: To perform an assembly program to sort an array in ascending order and descending order.

## Program for sorting an array in ascending order:

ASSUME CS: CODE, DS: DATA

**DATA SEGMENT** 

ARR DB 07H, 02H, 11H, 03H, 12H

DATA ENDS

**CODE SEGMENT** 

START:

MOV AX, DATA

MOV DS, AX

MOV CH, 04H

UP2: MOV CL, 04H

LEA SI, ARR

UP1: MOV AL, [SI]

MOV BL, [SI+1]

CMP AL, BL

JC DOWN

MOV DL, [SI+1]

XCHG [SI], DL

MOV [SI+1], DL

DOWN: INC SI

DEC CL

JNZ UP1

DEC CH

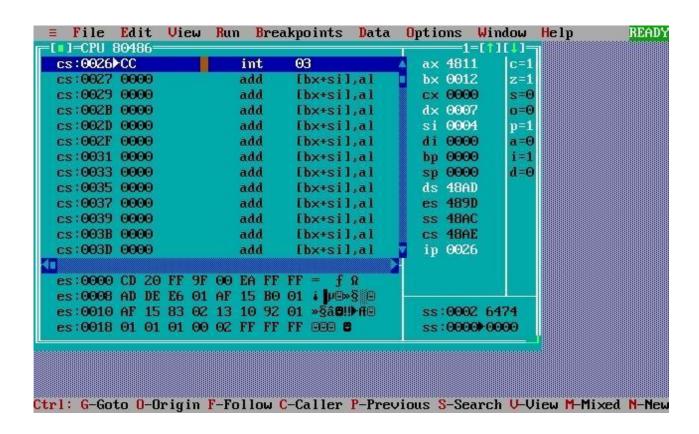
JNZ UP2

INT 03H

CODE ENDS

**END START** 

## **Output:**



**<u>Aim</u>:** To perform an assembly program to sort an array in ascending order and descending order.

Program for sorting an array in ascending order:

ASSUME CS: CODE, DS: DATA

DATA SEGMENT

ARR DB 07H, 02H, 11H, 03H, 12H

**DATA ENDS** 

**CODE SEGMENT** 

START:

MOV AX, DATA

MOV DS, AX

MOV CH, 04H

UP2: MOV CL, 04H LEA SI, ARR

UP1: MOV AL, [SI] MOV BL, [SI+1] CMP AL, BL

JNC DOWN

MOV DL, [SI+1] XCHG [SI], DL MOV [SI+1], DL DOWN: INC SI DEC CL

JNZ UP1

DEC CH

JNZ UP2

INT 03H

**CODE ENDS** 

**END START** 

## **Output:**

