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| Course: | Processor Organization and Architecture (POA) |
| Course Code: | DJ19CEL502 |
| Experiment  No.: | 06 |

**AIM:** Assembly program to sort numbers in ascending and descending order.

**CODE**:

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| DESCENDING ORDER:  data segment  string1 db 99h,12h,56h,45h,36h data ends  code segment  assume cs:code,ds:data  start:  mov ax,data  mov ds,ax  mov ch,04h  up2:  mov cl,04h  lea si,string1  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 3  code ends  end start | ASCENDING ORDER:  data segment  string1 db 99h,12h,56h,45h,36h data ends  code segment  assume cs:code,ds:data  start:  mov ax,data  mov ds,ax  mov ch,04h  up2:  mov cl,04h  lea si,string1  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 3  code ends  end start |

**OUTPUT**:

