Experiment - 5

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1. Write Assembly language programs to find the largest number in an array.
CODE :

```
org 100h
code:mov cx,4
 lea si,var
jump:mov al,[si]
 dec cx
again:inc si
 mov bl,[si]
 cmp al,bl
 jnc ahead
 mov al,bl

ahead:dec cx
 jnz again
 mov dl,al
 add dl,48
 mov ah,2
 int 21h
stop:ret
var db 2,3,1,4
small db ?
```

2. Write Assembly language programs to find L.C.M of two numbers.
CODE :

```
data SEGMENT
 a dw 0004h
 b dw 0002h
 r dw 0000h
 gdc dw ?
data ENDS
code SEGMENT
 ASSUME CS:code, DS:data
start:
 MOV AX, data
 MOV DS, AX
 MOV AX,a
 MOV BX,b
```

```
next:
 DIV BX
 CMP DX,0000h
 JZ over
 MOV r,DX
 MOV AX,BX
 MOV BX,r

over:
 MOV AX,a
 MUL b
 DIV BX
 MOV DX,AX
 ADD DX,48
 MOV AH,2
 INT 21h
 MOV AX, 4c00h
 INT 21h
code ENDS
 END start
```

3. Write Assembly language programs to find G.C.D of two numbers.

CODE :

```
data SEGMENT
 a dw 0001h
 b dw 0002h
 r dw 0000h
 gdc dw ?
data ENDS
code SEGMENT
 ASSUME CS:code, DS:data
start:
 MOV AX, data
 MOV DS, AX
 MOV AX,a
 MOV BX,b
next:
 DIV BX
 CMP DX,0000h
 JZ over
 MOV r,DX
 MOV AX,BX
 MOV BX,r

over:
```

```
 MOV DX,BX
 ADD DX,48
 MOV AH,2
 INT 21h
 MOV AX, 4c00h
 INT 21h
code ENDS
 END start
```

4. Write Assembly language programs to display nth term Fibonacci number.

CODE:

```
.model small
.code
 main PROC
 xor cx, cx
 mov bx, 1
 loopf:
 lea dx, [bx+48]
 mov ah, 02h
 int 21h
 xchg bx, cx
 add bx, cx
 cmp bx, 10
 jb loopfuk
 ENDP
end main
```