

27th February, 2002 CS101-02 Class Notes

Example 1: Draw a flowchart to sort three numbers in ascending order.

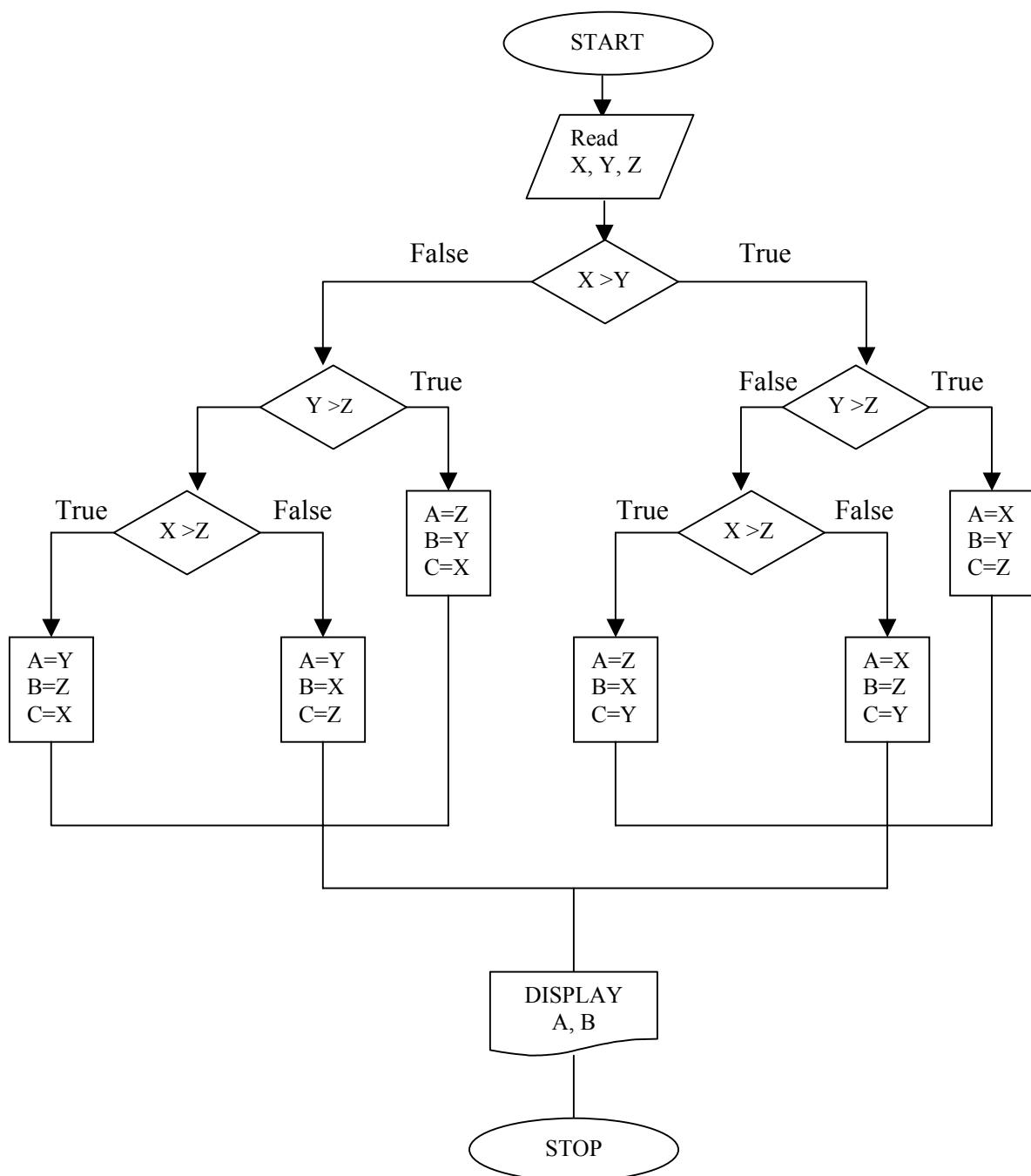
(Ascending: \uparrow , descending : \downarrow)

(5) x \rightarrow [] \rightarrow A=1
 (1) y \rightarrow [] \rightarrow B=5
 (10) z \rightarrow [] \rightarrow C=10

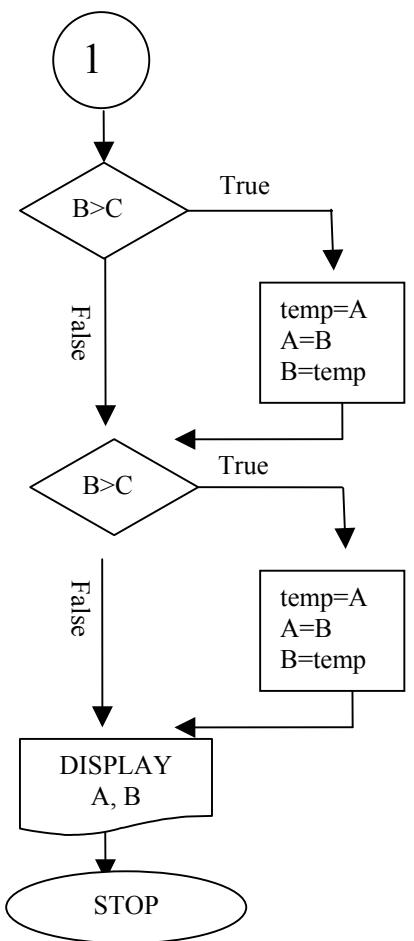
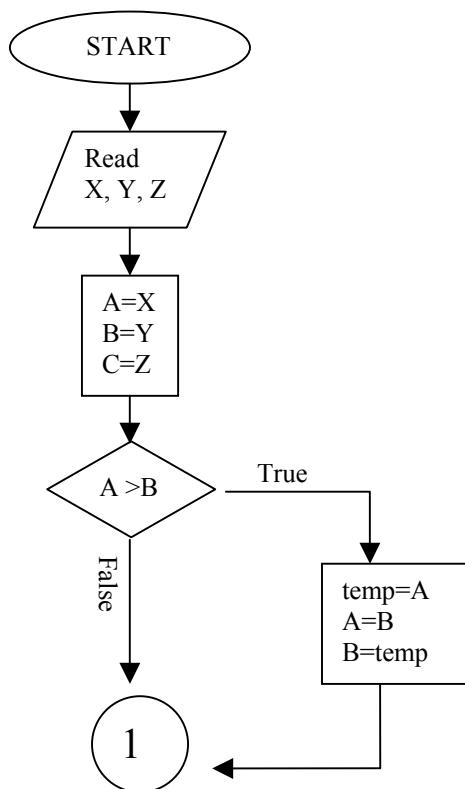
(Ascending)

(1) x \rightarrow [] \rightarrow A=1
 (5) y \rightarrow [] \rightarrow B=1
 (1) z \rightarrow [] \rightarrow C=5

(Non-decreasing)



Another Solution for the Question(Given by the teacher):



Solution in Pseudo Code:

```

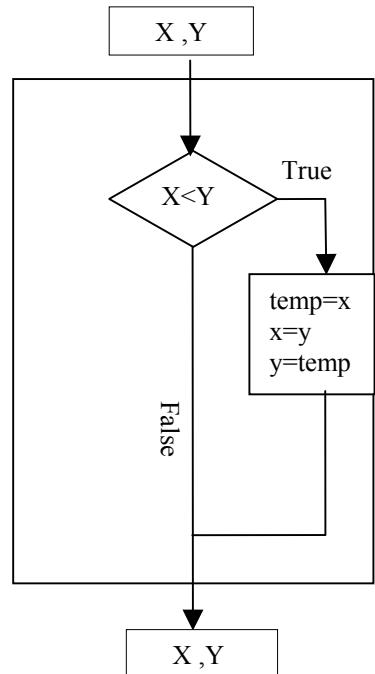
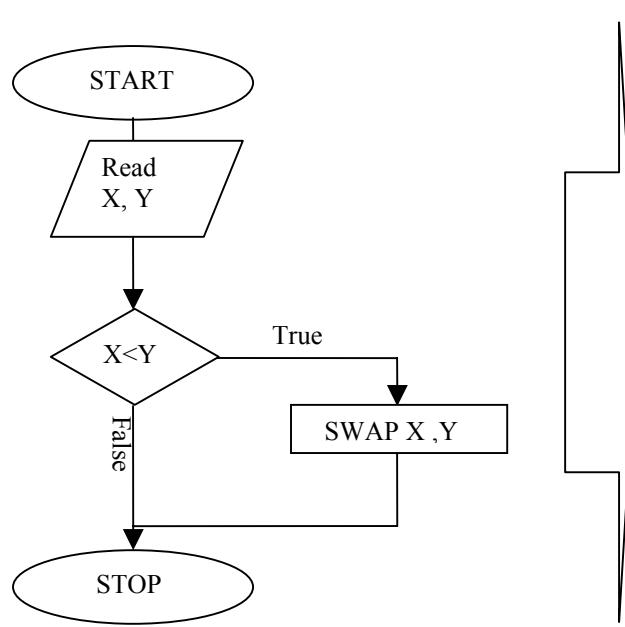
read: x, y, z
a=x
b=y
c=z
if a>b then
  temp=a
  a=b
  b=temp
endif
if b>c then
  temp=b
  b=c
  c=temp
endif
if a>b then
  temp=a
  a=b
  b=temp
endif
display a, b, c
  
```

stop

Example 2:

Draw a flowchart to sort 2 numbers.

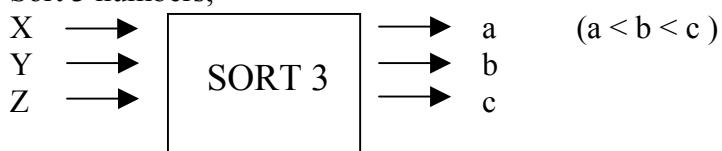
Solution:



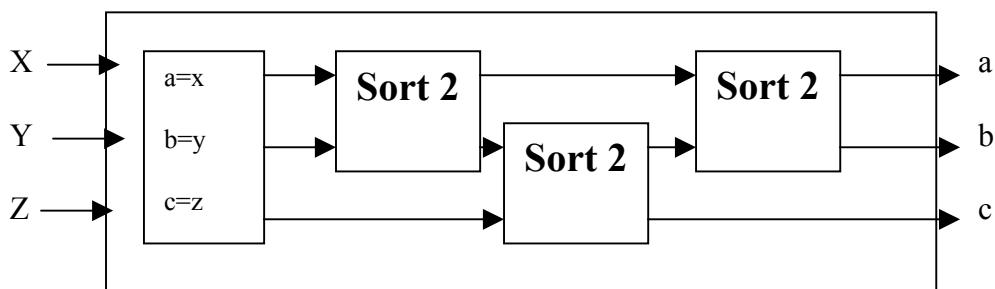
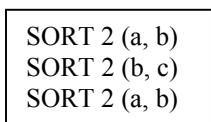
(SORT 2)

Example 3:

Sort 3 numbers;



Solution :



(Sort 3)

QUESTIONS AND THEIR ANSWERS

Question 1: Sort four numbers in ascending order in pseudo code.

Answer 1:

```
Start
    Read: x, y, z, t
    A=x
    B=y
    C=z
    D=t

    If A>B then
        Temp=A
        A=B
        B=temp
    End if

    If C>D then
        Temp=C
        C=D
        D=temp
    End if

    If A>C then
        Temp=A
        A=C
        C=temp
    End if

    If B>D then
        Temp=B
        B=D
        D=temp
    End if

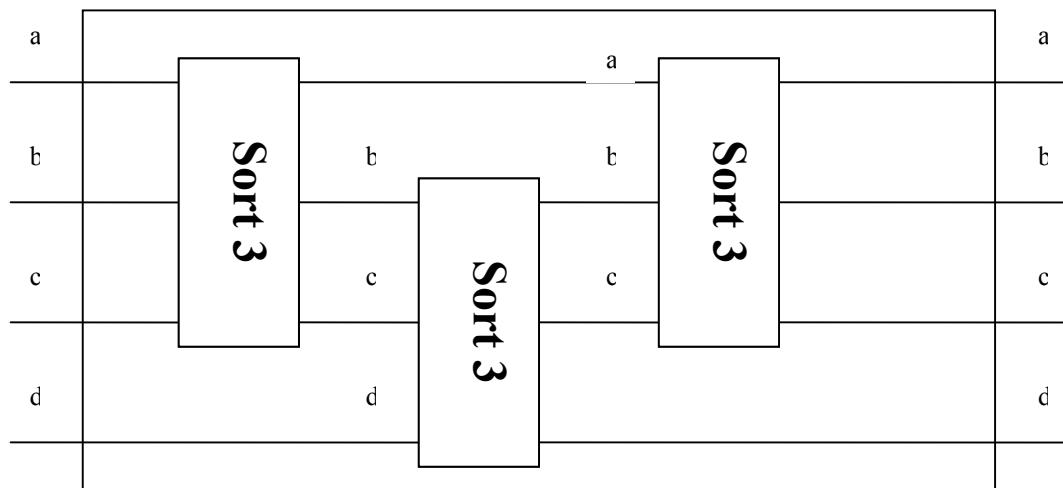
    If B>C then
        Temp= B
        B=C
        C=temp
    End if

    Display A, B, C, D

Stop
```

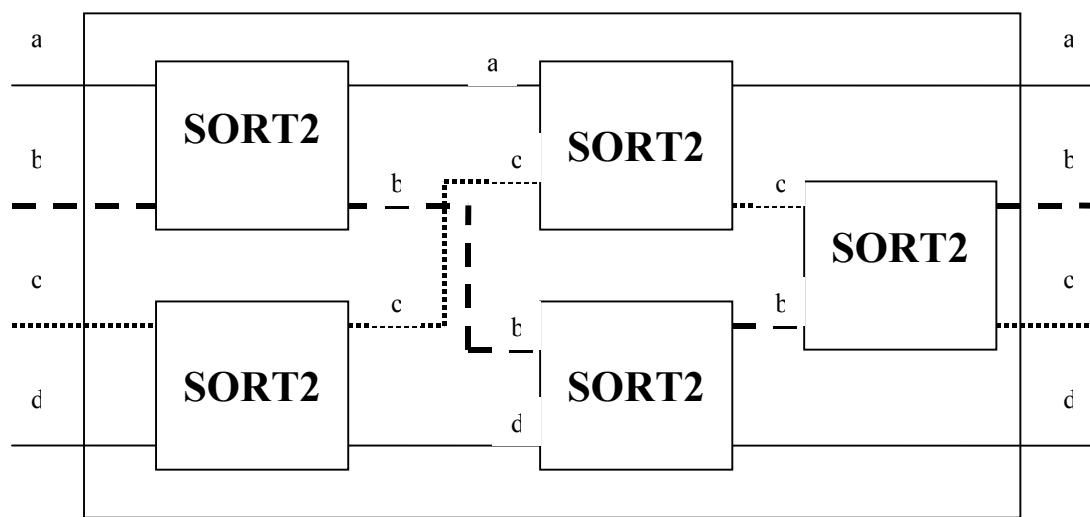
Question 2 : Try to sort 4 numbers a, b ,c, d in terms of sort3

Answer 2 :



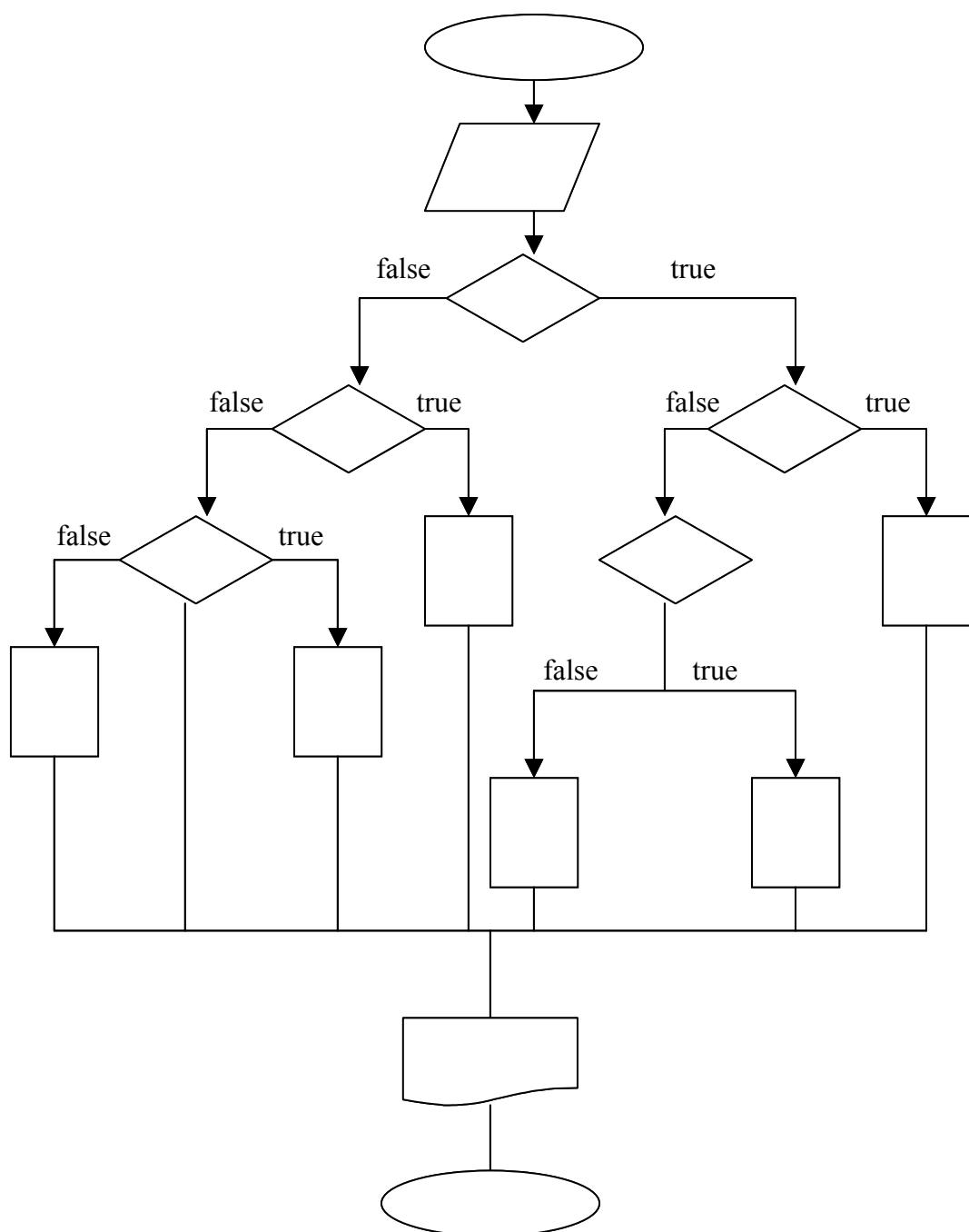
Question3 : Try to sort 4 numbers a, b, c, d in terms of sort2

Answer3 :



Question 4: Draw the flowchart of maximum(A) and minimum(B) of X, Y, Z.

Answer 4:



Question 5: Write the finding of maximum(A) and minimum(B) of X, Y, Z.

Answer 5:

```
Start
read X, Y, Z
if X>Y then
    if Y>Z then
        A=X
        B=Z
    else
        if X>Z then
            A=X
            B=Y
        else
            A=Z
            B=Y
    else
        if X>Z then
            A=Y
            B=Z
        else
            if Y>Z then
                A=Y
                B=X
            else
                A=Z
                B=X
endif
display A, B
stop
```