Experiment No-1

Experiment Name: A lab report of C program to find the largest number of the three numbers using if statement.

Objective:

- To write a C program that reads 3 numbers from the input and determines the largest using if statements.

Problem analysis:

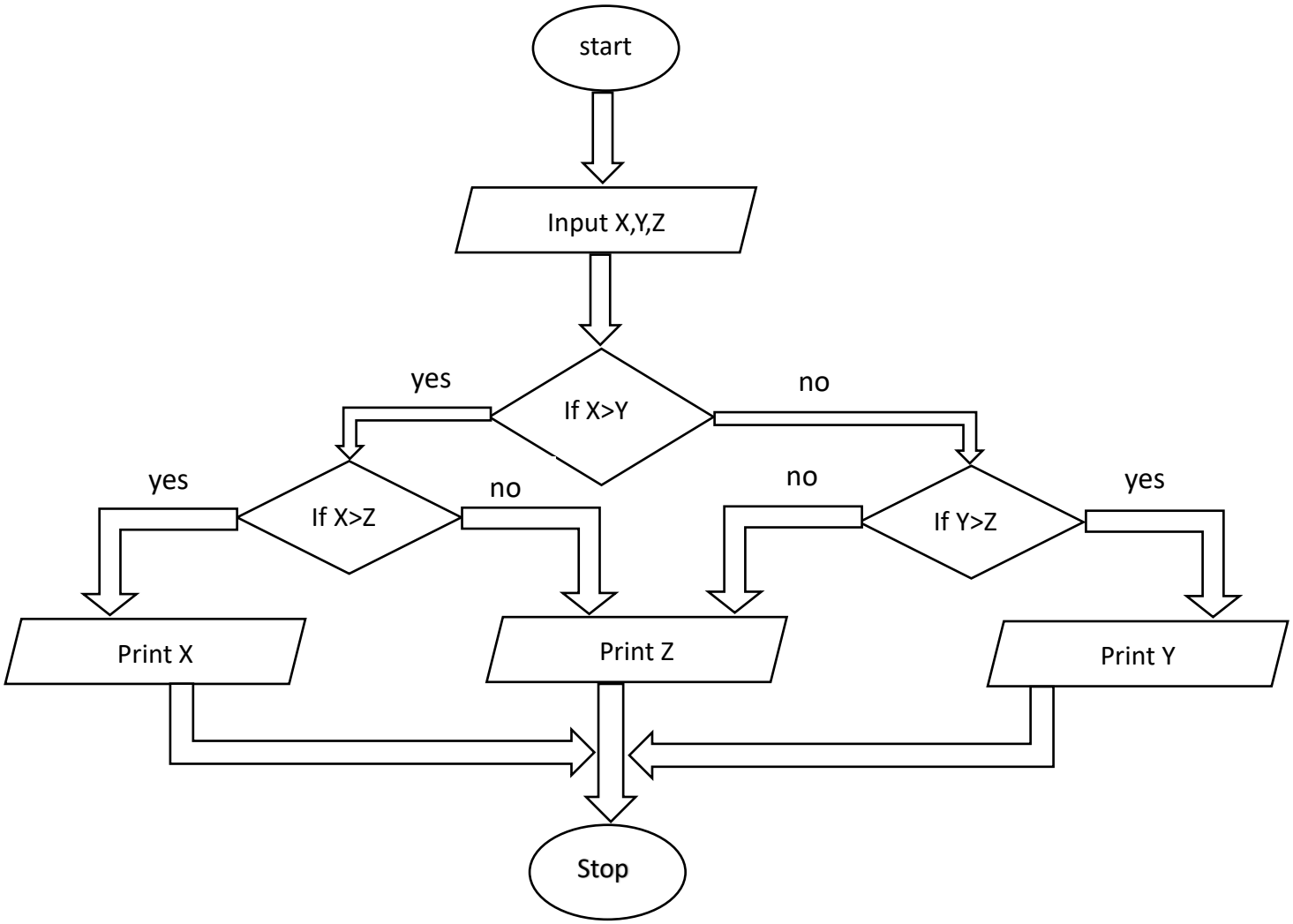
Given 3 numbers write a C program to determine and print the largest number among them.

Input variable	Processing variable	Output variable	Header file
X, Y, Z (int)	The largest num	largest int	#include<stdio.h>

Algorithm:

Step-1: start the program
Step 2: Declare variables X, Y, Z and largest
Step 3: Set largest to X
Step 4: if Y is greater than both X&Z, it is the largest.
Step 5: if neither both X&Y is the largest. So, Z must be the largest.
Step 6: Display the largest number
Step 7: End.

Flowchart:



Source code:

lab-4-ex-1.c

```c
#include <stdio.h>

int main() {
    int X, Y, Z;

    printf("Enter three numbers: ");
    scanf("%d %d %d", &X, &Y, &Z);

    if (X>Y && X>Z) {
        printf("Largest number is: %d\n", X);
    }
    if (Y>X && Y>Z) {
        printf("Largest number is: %d\n", Y);
    }
    if (Z>X && Z>Y) {
        printf("Largest number is: %d\n", Z);
    }
    return 0;
}
```

Output:

```
Enter three numbers: 50 100 -150
Largest number is: 100

Process returned 0 (0x0)   execution time : 101.225 s
Press any key to continue.
```

Discussion:

This experiment focused on determining the largest number among three given values using the `if` statement in C programming.

Through this task, we have:

- Understood how to take user input using `scanf()`.
- Applied conditional logic using simple `if` statements.
- Learned to display results with `printf()`.

By implementing this program, we gained a clearer understanding of how decision making works in C. This knowledge will help in building more complex programs that require logical comparisons.