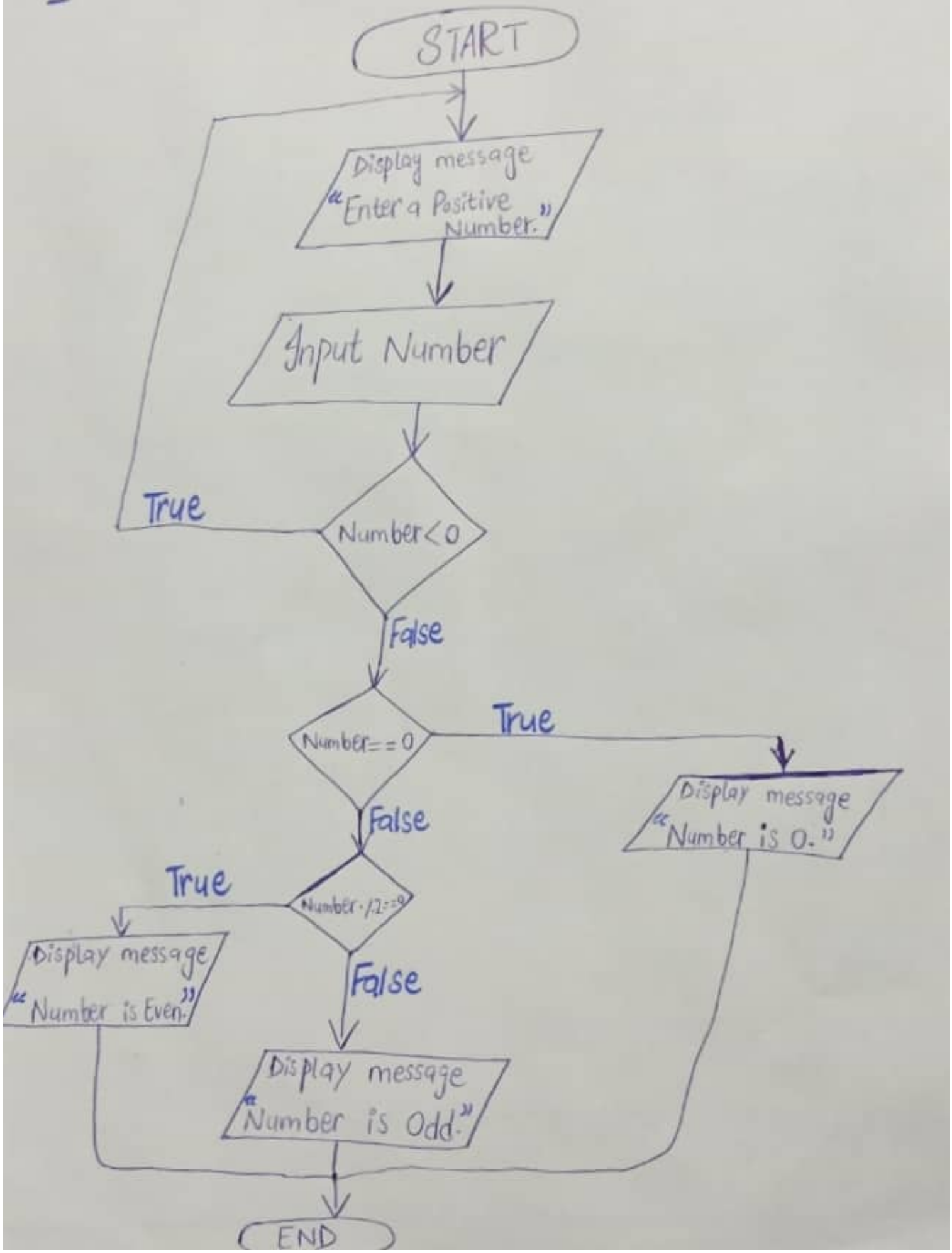
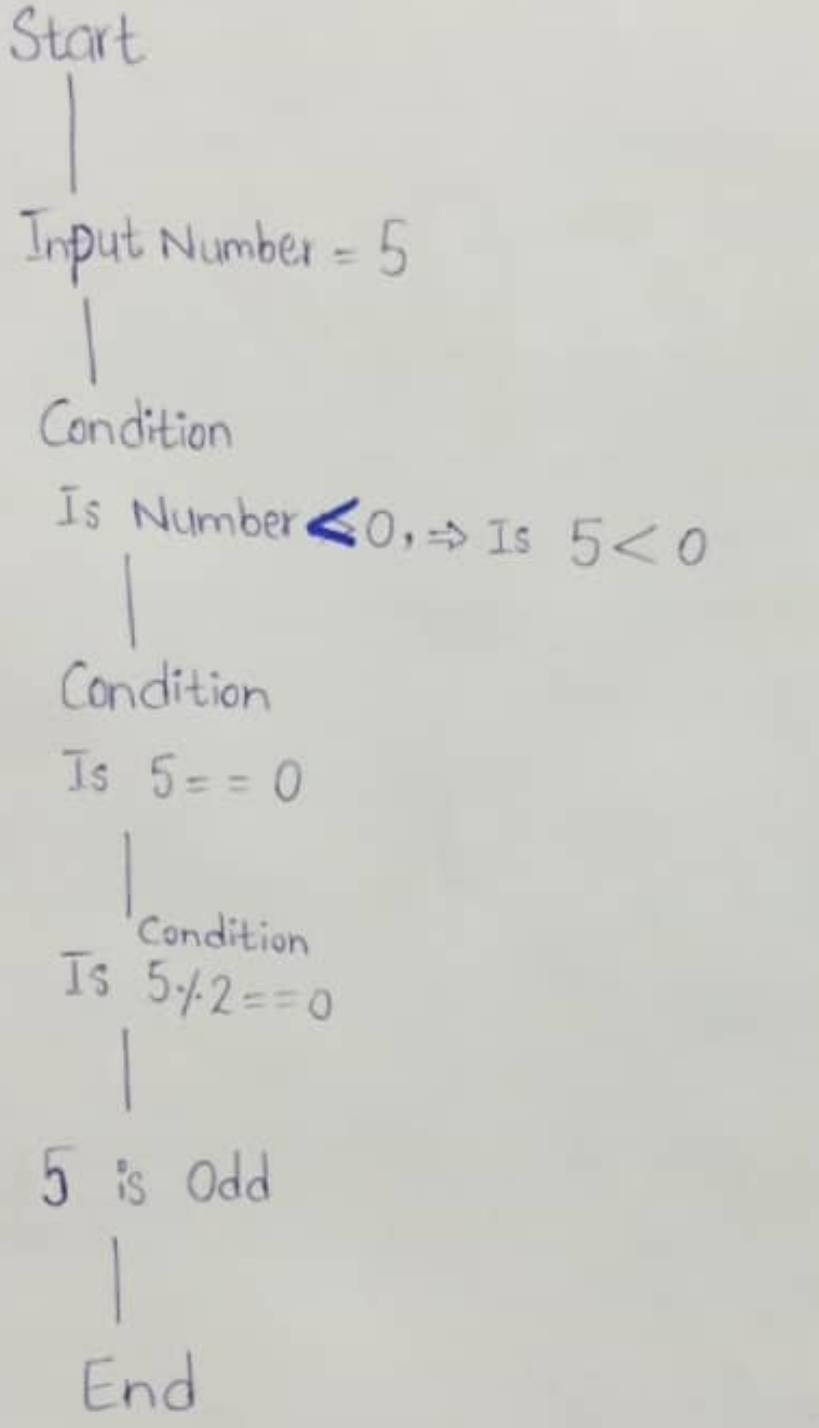
Q:1 Flowcharts:



Finding a number is even, odd or zero. (Suppose given Number is "5")



Q:2 Algorithm

Step 1: START

Step 2: Declare 3 variable a, b and x.

Step 3: Import Scanner object.

Step 4: Display message "Enter minimum value"

Step 5: Assign minimum value to variable a.

Step 6: Display message "Enter maximum value"

Step 7: Assign maximum value to variable b.

Step 8: While a >= b display message "a should be less than b." and goto step-4 otherwise goto step-9.

Step 9: Display message "Enter value of x."

Step 10: Check if x >= a and x <= b then goto Step-11 otherwise goto step-12.

Step 11: Display message "The number is in Range."

Step 12: Display message "The number is not in Range"

Step 13: End

Q:3 Pseudocodes

Q:1

```
Import Scanner
    do{
      S.o.p ("Enter a number")
      int a=  in.nextInt()
    }while(a<0)

    if(a==0) {
          S.o.p ("Number is 0.")
    }
    else if (a%2==0) {
          S.o.p ("Number is Even")
    }
     else {
          S.o.p ("Number is Odd.")
    }
end
```

Q:2

```
Import Scanner

    do{
        S.O.P (Enter min value)
        int a = in.nextInt()

        S.O.P (Enter max value)
        int b = in.nextInt()

    }while (a>=b)

S.O.P (Enter value you want to check)
  int x = in.nextInt()

  if(x<a || x>b) {

      S.O.P (The number is not in Range)

  }else{

      S.O.P (The number is in Range)

  }

  end
```