Assignment

12th February

Q1) check if a year is leap year or not.

Sol. Step 1 := Start

Step 2 := Initialize the value of year (y)

Step 3 => check y%4 == 0

then,

Print (y is leap year)

otherwise,

Print y is not leap year

Step 4 => Stop

Q2) write algorithm to print all odd numbers backward from 99 to 1

Step 1 =) Start

Step 2 =) Initialize x = 99

Step 3 =) Print x

Step 4 =) x = x - 2

Step 5 =) check x >= 1

then goto Step 3

Step 6 => otherwise, stop

Q3 Java Program to Calculate Distance b/w Two Points.

Soln next page => => =>

Sol

```
import java.lang.math.*;

class    DistanceBWPoints
{
Public static void main (String arg[])
{
    int x1, x2, y1, y2;
    double dis;

    x1 = 1; y1 = 1; x2 = 4; y2 = 4;

    dis = Math.sqrt ((x2-x1)*(x2-x1)+ (y2-y1)*(y2-y1));

    System.Out.Println ("distance between"+ "("+x1","+y1"),"+
    ("+x2", "+y2") ===>"+ dis );
}
}
```

(4) Write algorithm to print sum of even & odd digits
, considering 10 numbers are taken from user

Sol

Step 1: Start
Step 2 ⇒ Initialize the value of n
Step 3   Set SE=0, SO=0.
            while (n>0) {
            then   r = n%10
                    n = n%10
                 & check r%2 ==0
                 then,
                        SE = SE + r
                 otherwise
                        SO = SO + r
                 }

Step 4 => Print Sum of Even digits (SE)
Step 5 => Print Sum of odd digits (SO)
Step 6 => Stop

05) calculate product of digits

Soln)   1) Start
        2) Initialize value of n & P = 01, r
        3) check n > 0 ξ
                then, P r = n % 10
                       n = n / 10
                       P = P * r

        4) Print Product of digits
        5) Stop.

06) WAP to print first x terms of the series 3N+2
    which are not multiplies of 4

07) Write algorithm to find Compound Interest
    , provided principle, time & ROI are taken by
    user.

Sol)   1) Start
        2) Input Principle amount (P)
        3) input time (t)
        4) Input Rate (r)
        5) Amount = $P \times (1 + r/100)t$)
        6) Print Amount i.e, compound Interest
        7) Stop