



CLASS : IX

Subject: Computer Application

Date:

02/07/20

Topic: Loop (while loop)

Time Limit: 1 hour

Worksheet No. 10

INSTRUCTION Please go through all the questions and answers thoroughly.

- Write all the questions and answers in your exercise book.
- Ensure neat and tidy work
- Do not write above the red line of the notebook pages.
- Use single-lined notebook with64..... pages and write with blue ink.
- Make a content page first with different heads as given below.

Date	Worksheet no	Chapter no and name	page no	Teacher's signature,

Program 1.

Input a number and check whether the number is Buzz number or not.
(A number is said to be a buzz number if the digit 0 is present in the number)
e.g 1203.

```
class Display
{
    public static void main(int n)
    {
        int i,r=0,p=1;

        while(n>0)
        {
            r=n%10;
            p=p*r;
            n=n/10;
        }

        if(p==0)
        {
            System.out.print("Duck number ");
        }
        else
        {
            System.out.print("Not a duck number");
        }
    }
}
```

Working of the program .

```
/*
```

Inside while loop we find product of all the digits and stored it in p.

So if any of digit of n is 0, value of p will also be 0.

Outside the loop we are testing if p is 0 so n is a duck number. */

Program 2

Input a number and print the highest digit of the number.

e.g. :

Input : 1725

Output : 7

```
class display
{
    public static void main(int n)
    {
        int i,r=0,H=0;

        while(n>0)
        {
            r=n%10;

            if(r>H)
            {
                H=r;
            }
            n=n/10;
        }

        System.out.print(H);
    }
}
```

/*

Working of the program

Each digit of n is stored in r simultaneously. And which ever digit is greater than H value of that digit will be stored in H. As each digit will be tested with H , ultimately highest digit will be stored in H, and that will be printed.

*/

Question 3

Input 2 numbers from the user and merge them and print the new number.

e.g.

a=12 b=345

the new number will be 12345

```
class display
{
    public static void main(int a,int b)
    {
        int c=0;
        c=b;

        while(c>0)
        {
            a=a*10;
            c=c/10;
        }
        a=a+b;

        System.out.print(a);
    }
}
```

/*Working of the program:
We assume a=12 and b=345,
Inside main method we have given c=b so c=345;

Inside while loop

c	c>0	a=a*10
345	true	120
34	true	1200

3	true	12000
0	false	

a=a+b, a=12000+345,
 a=12345

Program 4

Input 2 numbers and find HCF of 2 numbers.

e.g.

INPUT : 18 , 12
OUTPUT : 6

```
class HCF
{
    public static void main(int a,int b)
    {
        while( a!=b)
        {
            if(a>b)
            {
                a=a-b;
            }
            else
            {
                b=b-a;
            }
        }

        System.out.print(a);
    }
}
```

/*

Working of the program

We assume a=18, b=12

As long as (!= implies NOT equal) a and b are not equal the loop will continue.

a	b	while(a!=b)
18	12	true
6	12	true
6	6	false

OUTPUT : 6

*/