

Question-1:

Write a java program to display the following messages.

Hello "ITERIAN"

Welcome to Siksha 'O' Anusandhan Family.

Welcome to "Introduction to Computer Laboratory"

Java is fun for All !!

Ans.

```
public class Q1
```

```
{
```

```
    public static void main (String args[])
```

```
    {
```

```
        System.out.println("Hello \"ITERIAN\"");
```

```
        System.out.println("Welcome to Siksha 'O' Anusandhan Family");
```

```
        System.out.println("Welcome to \"Introduction to Computer  
                                Laboratory\"");
```

```
        System.out.println("Java is fun for All !!");
```

```
    }
```

```
}
```

Output:

Hello "ITERIAN"

Welcome to Siksha 'O' Anusandhan Family

Welcome to "Introduction to Computer Laboratory"

Java is fun for All !!

Question-2:

Write a complete java program to show the pattern similar to the following.

```
* * * * *
      *
    * * * * *
      *
    * * * * *
      *
    * * * * *
```

Ans.

```
public class Q2
{
    public static void main(String args[])
    {
        System.out.println(" * * * * *      * * * * * ");
        System.out.println("      *      *      * ");
        System.out.println("    * * * * *      * * * * * ");
    }
}
```

Output:

```
* * * * *      * * * * *
      *      *      *
    * * * * *      * * * * *
```

Question-3 :

Write a java program to print the following pattern using Hash. (#).

```
# # # # # # # #
# #           # #
# #           # #
# # # # # # # #
```

Ans.

```
public class Q3
```

```
{ public static void main (String[] args)
```

```
{ System.out.println(" # # # # # # # # # #");
```

```
System.out.println(" # # # # # # # #");
```

```
System.out.println(" # # # # # # # #");
```

```
System.out.println(" # # # # # # # # # #");
```

```
}
```

```
}
```

Question 4:

Write a java program that will display your First, middle and Last name in different lines without using method println().

Ans.

```
public class Q4
```

```
{
```

```
    public static void main(String args[])
```

```
    {
```

```
        System.out.print("SuryaMadhab In Moharana");
```

```
    }
```

```
}
```

Output :-

Suryamadhab

Moharana

Q5:

Write a java program to greet someone. Your program stores person name and greeting message into two variables and display their values on the screen.

Eg. Hey Rishi, Good Morning!

Ans.

```
public class Q5
```

```
{
```

```
    public static void main(String args[])
```

```
{
```

```
        String name = "Rishi";
```

```
        String greeting = "Good Morning!";
```

```
        System.out.println("Hey" + name + ", " + greeting);
```

```
    }
```

```
}
```

Output:-

Hey Rishi, Good Morning!

Question 6:-

Write a java program to ~~exchange~~ store your Bank account no., name, and balance in three different variables and display their values on the big screen given.

"My name is Ankit Kumar bearing account number 123456 having balance 7654.98".

Ans.

```
public class Q6
```

```
{ public static void main(String args[])
```

```
{
```

```
    String name = "Ankit Kumar";
```

```
    int acc-no = 123456;
```

```
    double bal = 7654.98;
```

```
    System.out.println("\n My name is " + name + " bearing  
account number " + acc-no + " having balance  
+ bal + "\n");
```

```
}
```

```
}
```

Output

"My name is Ankit Kumar bearing account number 123456 having balance 7654.98".

Question 7:-

Write a Java program to exchange the values of two variables of integer type X and Y using third temporary variable Z.

Ans.

```
public class Q7
```

```
{
```

```
    public static void main (String args[])
```

```
    {
```

```
        int X = 5;
```

```
        int Y = 9;
```

```
        int Z;
```

```
        System.out.println("Before Swapping, X=" + X + ", Y=" + Y);
```

```
        Z = X;
```

```
        X = Y;
```

```
        Y = Z;
```

```
        System.out.println("After swapping, X=" + X + ", Y=" + Y);
```

```
    }
```

```
}
```

Output:

Before swapping, X = 5, Y = 9

After swapping, X = 9, Y = 5

Question 8 :-

Write a java program to exchange the values of two variables of integer type X and Y without using third temporary variable.

Ans.

```
public class Q8
```

```
{
```

```
    public static void main(String args[])
```

```
    { int X, Y = 5, 9;
```

```
      System.out.println("Before swapping: X = " + X + ", Y = " + Y);
```

```
      X = X + Y;
```

```
      Y = X - Y;
```

```
      X = X - Y;
```

```
      System.out.println("After swapping: X = " + X + ", Y = " + Y);
```

```
    }
```

```
}
```

Output:

Before swapping: X = 5, Y = 9

After swapping: X = 9, Y = 5.

Question-9:

What do each of the following print?

- a) `System.out.println(5);`
- b) `System.out.println((float)25/6);`
- c) `System.out.println(5+'6');`
- d) `System.out.println(5+7+'9');`
- e) `System.out.println("92"+7+5);`
- f) `System.out.println(2+"9");`

Output:-

5

4.1666665

59

69

9275

29

Question 10:

Assume a string variable ruler1 "has" 1 initially i.e. String ruler1 = "1"; Write a java program to print the following output using string concatenation. (You can take extra string variable).

```
1
1 2 1
1 2 1 3 1 2 1
1 2 1 3 1 2 1 4 1 2 1 3 1 2 1
```

Ans.

```
public class Q10
```

```
{
    public static void main (String args[])
```

```
{
```

```
    String ruler1 = "1";
```

```
    System.out.println(ruler1);
```

```
    ruler1 = ruler1 + "2" + ruler1;
```

```
    System.out.println(ruler1);
```

```
    ruler1 = ruler1 + "3" + ruler1;
```

```
    System.out.println(ruler1);
```

```
    ruler1 = ruler1 + "4" + ruler1;
```

```
    System.out.println(ruler1);
```

```
}
```

```
}
```

HOME ASSIGNMENT-1

Question 1.

What do each of the following print?

- a) `System.out.println(2+"bc");`
- b) `System.out.println(2+3+"bc");`
- c) `System.out.println((2+3)+"bc");`
- d) `System.out.println("bc" + (2+3));`
- e) `System.out.println("bc" + 2+3);`

Ans. 2bc
5bc
5bc
bc5
~~bc23.~~

Question 2 :

What do each of the following print?

- a) `System.out.println('b');`
- b) `System.out.println('b'+'c');`
- c) `System.out.println((char)('a'+4));`

Ans. b
197
e

Question 3 :

Suppose that a variable a is declared as
`int a = 2147483647` (or equivalently,
Integer.MAX_VALUE). What do each of the
following print?

- a) `System.out.println(a);`
- b) `System.out.println(a+1);`
- c) `System.out.println(2-a);`
- d) `System.out.println(-2-a);`
- e) `System.out.println(2*a);`
- f) `System.out.println(4*a);`

Ans. 2147483647
-2147483648
-2147483645
2147483647
-2
-4

Question 4:

Suppose a variable is declared as `double a = 3.14159`. What do each of the following print?

- a) `System.out.println(a);`
- b) `System.out.println(a+1);`
- c) `System.out.println(8/(int)a);`

- d) `System.out.println(8/a);`
e) `System.out.println((int)(8/a));`

Ans 3.14159
4.14159
2
2.5464812403910124
2

Questions :

Write a java program to exchange the value of 4 variables W, G, K, A such that the value of W will move to A, A to K, K to G and finally G to W. Exchange using with and without using extra variable.

Ans

```
public class P5
{
    public static void main (String arg[])
    {
        int W=1;
        int G=2;
        int K=3;
        int A=4;
```


System.out.println("Values before swapping
are "+W+", "+G+", "+K+", "+A);

$$W = W + G;$$

$$G = W - G;$$

$$W = W - G;$$

$$G = G + K;$$

$$K = G - K;$$

$$G = G - K;$$

$$K = K + A;$$

$$A = K - A;$$

$$K = K - A;$$

System.out.println("Values after
exchanging are "+W+", "+G+", "+K+", "+A);

}

~~end~~

}

Output:

Values before exchanging are 1, 2, 3, 4

Values after exchanging are 4, 1, 2, 3.