WORKSHEET -A

Ques 1. Write a java program Add two Numbers,

Explanation: In this program two integer variables are declared as a=8 and b=7, then they are added and their sum is stored into third integer variable addition.

```
import java.io.*;
public class Summation
{
 public static void main(String[] args)
 {
   int a=8,b=7;
   int addition=a+b;
   System.out.println("addition of two numbers is:"+addition);
 }
}
```

Ques 2. Write a java program Check Whether a Number is Even or Odd,

Explanation : In this program integer is already defined. A function 'NumberIsEvenOrOdd()' Divides a number by 2 and checks if modulous is zero or not. If its zero then given number is Even otherwise it's a Odd number.

```
import java.io.*;
public class NumberIsEvenOrOdd{
   public static void main(String[] args) {
   int a = 13;
   if(a%2==0)
      System.out.println(a+"is Even number");
   else
      System.out.println(a+" is Odd number");
   }
}
```

Ques 3. Write a java program Check if a given number is palindrome or not.

Explanation : In this program, a function checkIfPalindrome() checks if number is greater than zero or not. If its greater than zero then it proceeds to get a reverse of a number by performing some recurring arithmetic operations. Then it checks if original number and reverse of a number are same or not. If same then the number is palindrome atherwise not.

```
public class Palindrome()
{
   int reverse=0;
   checkIfPalindrome( int num)
   {
      while(num>0)
      {
         digit=num%10;
         reverse=reverse*10+digit;
         num=num/10;
      }
      if(num==reverse){
         System.out.println(num+" is a palindrome");
      }
   }
   public static void main(String[] args) {
      int num1=1234;
      int num2=12321;
      checkIfPalindrome(num1);
      checkIfPalindrome(num2);
   }
}
```

Ques 4. Write a java program to find the sum of n natural numbers,

Explanation: In this program first 20 natural numbers summation is done. For loop is applied using condition, 'no. of iterations starting from 1 to 20'.

```
   public class SumOfNaturalNumbers{
   public static void main(String[] args) {
   int n=20;
   int sum=0;
   for(int i=1;i<=20;i++)
   { sum=sum+i;
   }
   System.Odd.println("Sum of first "+n+" natural numbers is: "+sum);
```

```
    }
}
```

Ques 5. Write a java program to Check Prime Number or not

Explanation : Prime number is a number which is divisible by 1 and itself. In this program, a function 'numberIsPrimeOrNot(int n)' takes 'n' as integer input to check if it's a prime number or not. For loop is applied to check given number is divisible by how many numbers. If count==2 then given number is prime, otherwise given number is not prime number.

```
public class CheckIfPrime{
   numberIsPrimeOrNot(int n){
      int count=0;
      for(int i=1;i<=n;i++)
      {
         if(n%i==0)
         {
            count++;
         }
      }
      if(count==2)
      System.out.println(n+" is a prime number");
      else
      System.out.println(n+" is not a prime number");
   }
   public static void main(String[] args) {
      numberIsPrimeOrNot(53);
      numberIsPrimeOrNot(123);
      numberIsPrimeOrNot(16);
   }
}
```