Assignment – 4

Name:Santhanam.L

Question 1

Write a program to print numbers from 1 to 10.

```
Ans:
package assignment;
public class Printnum {
public static void main(String[] args) {
for(int i=1;i<=10;i++) {
System.out.println(i);
}
}</pre>
```

```
1
2
3
4
5
6
```

```
7
8
9
10
```

Question 2 Write a program to calculate the sum of first 10 natural number.

```
package assignment;
public class Sumof10 {
public static void main(String[] a) {
  int sum=0;
  for(int i=1;i<=10;i++)
  {
   sum=sum+i;
} System.out.println("the num of sum: " +sum);
}</pre>
```

```
the num of sum: 55
```

Write a program that prompts the user to input a positive integer. It should then print the multiplication table of that number.

```
package assignment;
import java.util.Scanner;
public class MultipleTable {
  public static void main(String[] a) {
    Scanner scan=new Scanner(System.in);
    System.out.println("Enter the any pasitive number:
");
    int num=scan.nextInt();
    for(int i=1;i<=15;i++) {
        System.out.println(i +"*" + num + "=" + num*i);
    }
}</pre>
```

```
Enter the any pasitive number:

5

1*5=5

2*5=10
```

```
3*5=15

4*5=20

5*5=25

6*5=30

7*5=35

8*5=40

9*5=45

10*5=50

11*5=55

12*5=60

13*5=65

14*5=70
```

Question 4 Write a program to find the factorial value of any number entered through the keyboard.

```
package assignment;
import java.util.Scanner;
public class Factorial {
public static void main(String[] a) {
```

```
Scanner scan=new Scanner(System.in);
System.out.println("Enter the factorial number: ");
int fact=scan.nextInt();
int num=1;
for( int i=1;i<=fact;i++)
{
    num*=i;
}
System.out.println(num);
}</pre>
```

```
Enter the factorial number:

5
120
```

Question 5

Two numbers are entered through the keyboard. Write a program to find the value of one number raised to the power of another. (Do not use Java built-in method)

```
package assignment;
import java.util.Scanner;
public class Powertwonum {
public static void main(String[] a) {
Scanner <u>scan</u>=new Scanner(System.in);
System.out.println("Enter the number:");
int num=scan.nextInt();
System.out.println("Enter the power number:");
int pNum=scan.nextInt();
int start=1;
int value=1;
while(start<=pNum)</pre>
{
value*=num;
start++;
System.out.println(value);
}
```

```
Enter the number:
```

```
Enter the power number:

3
125
```

Write a program that prompts the user to input an integer and then outputs the number with the digits reversed. For example, if the input is 12345, the output should be 54321.

```
package assignment;
import java.util.Scanner;
public class Reverseprint {
public static void main(String[] a) {
   Scanner scan=new Scanner(System.in);
   System.out.print("Enter the numbers");
   int num=scan.nextInt();
   int rev=0;
   int digit=0;
   while(num!=0) //123!=0-->true //12!=0-->true
   {
    digit= num % 10; //0=123%10---> ans:3 //0=12%10
    ans:2
```

```
rev=rev*10 +digit; //0=0*10+3--->ans:rev=3
//3=3*10+2 --> ans:32

num=num/10; //123/10---->12.3 store int ans:12
//12/10-->ans:1
}
System.out.println("reverse num :"+rev);
}
```

```
Enter the numbers123456 reverse num:654321
```

Ouestion 7

Write a program that reads a set of integers, and then prints the sum of the even and odd integers.

```
package assignment;
import java.util.Scanner;
public class Sumofevenodd {
public static void main(String[] a)
{
Scanner scan=new Scanner(System.in);
System.out.println("Enter the numbers count: ");
int num=scan.nextInt();
```

```
int evenNum=0;
int oddNum=0;
for(int start=1;start<=num;start++)</pre>
System.out.println("Enter the number");
int num2=scan.nextInt();
if(num2%2==0)
{
evenNum+=num2;
else
oddNum+=num2;
System.out.println(" sum of even num:"+evenNum);
System.out.println("sum of odd num: "+oddNum);
}
```

```
Enter the numbers count:
```

```
Enter the number

1
Enter the number

2
Enter the number

3
Enter the number

4
Enter the number

5
sum of even num:6
sum of odd num: 9
```

Write a program that prompts the user to input a positive integer. It should then output a message indicating whether the number is a prime number.

```
package assignment;
import java.util.Scanner;
public class Primenum {
```

```
public static void main(String[] a)
{
Scanner scan=new Scanner(System.in);
System.out.println("Enter the number: ");
int num=scan.nextInt();
for(int i=2;i<=num;i++) {</pre>
if(num %i==0) {
System.out.println("this is prime not number");
break;
else {
System.out.println("this is prime number");
break;
```

```
Enter the number:
7
this is prime number
```

Question 9 Write a program to calculate HCF of Two given number.

```
package assignment;
import java.util.Scanner;
public class Hcf {
public static void main(String[] a)
int Hcf=0;
Scanner scan=new Scanner(System.in);
System.out.println("Enter the num:");
int num=scan.nextInt();
System.out.println("Enter the num2");
int num2=scan.nextInt();
for(int start=1;start<=num||start<=num2;start++) {</pre>
if(num%start==0 && num2%start==0) {
Hcf=start;
} System.out.println("HCF:" +Hcf);
```

```
Enter the num:

144

Enter the num2

228

HCF:12
```

Question 10

Write a do-while loop that asks the user to enter two numbers. The numbers should be added and the sum displayed. The loop should ask the user whether he or she wishes to perform the operation again. If so, the loop should repeat; otherwise it should terminate.

```
package assignment;
import java.util.Scanner;
public class Addsumdowhile {
public static void main(String[] a)
{
Scanner scan=new Scanner(System.in);
String word;
int result=0;
do {System.out.println("enter the number1:");
int num1=scan.nextInt();
System.out.println("Enter the number2:");
```

```
int num2=scan.nextInt();
result=num1+num2;
System.out.println("the sum of num:" +result);
System.out.println("press continue YES or No:");
word=scan.next();
}while(word.equalsIgnoreCase("yes"));
}
}
```

```
enter the number1:

Enter the number2:

the sum of num:10

press continue YES or No:

YES

enter the number1:

4

Enter the number2:
```

```
the sum of num:9
press continue YES or No:
```

Write a program to enter the numbers till the user wants and at the end it should display the count of positive, negative and zeros entered.

```
package assignment;
import java.util.Scanner;
public class Countposnegzero {
public static void main(String[] a) {
int posNum=0, negNum=0, zero=0;
Scanner scan=new Scanner(System.in);
char str;
for(int i=1;i>=0;i++)
System.out.println("Enter the num:");
int num=scan.nextInt();
if(num>0) {
posNum++;}
else if(num<0) {</pre>
negNum++;}
else if(num==0) {
```

```
zero++;
System.out.println(" continue press: y or n");
str=scan.next().charAt(0);
if(str=='n')
break;
else if(str=='y')
continue;
}
System.out.println(" the positive Number:"
+posNum);
System.out.println("the negative Number: "+negNum);
System.out.println(" zero number:" +zero);
```

```
Output: Enter the num:

2
Enter the num:

-3
Enter the num:

-5
```

```
Enter the num:
0
continue press: y or n
Enter the num:
2
Enter the num:
-9
Enter the num:
0
continue press: y or n
the positive Number:2
the negative Number: 3
zero number:2
```

Write a program to enter the numbers till the user wants and at the end the program should display the largest and smallest numbers entered.

```
package assignment;
import java.util.Scanner;
```

```
public class Largenumsmallnum {
public static void main(String[] args)
{
Scanner input=new Scanner(System.in);
int number;
int max=Integer.MIN VALUE;
int min=Integer.MAX VALUE;
System.out.println("maximum "+max);
System.out.println("minimum "+min);
char choice;
do
System.out.print("Enter the number: ");
number=input.nextInt();
if(number>max)//9>-2147483648 true
max=number;
else if(number<min)//-8<2147483647 true
min=number;
System.out.print("Press y for continue and n for
stop..!");
choice=input.next().charAt(0);
}while(choice=='y'||choice=='Y');
```

```
System.out.println("Largest number: "+max);
System.out.println("Smallest number: "+min);
}
```

```
maximum -2147483648
minimum 2147483647
Enter the number: 585
Press y for continue and n for stop..!y
Enter the number: 4658
Press y for continue and n for stop..!y
Enter the number: -25
Press y for continue and n for stop..!y
Enter the number: 0
Press y for continue and n for stop..!y
Largest number: 4658
Smallest number: -25
```