CSA-0993 JAVA PROGRAMMING

ASSIGNMENT-4

1) PRINT ALL THE PRIME & COMPOSITE NUMBER

```
int arr[] = {4, 54, 29, 71, 7, 59, 98, 23};
int com=0, pri=0;
for (int i=0; i< arr.length; i++)
{
    int c=0;
    for (int j=1; j<arr[i]; j++)
    {
        if (arr[i]%j==0)
        {
            c++;
        }
    }
    if (c>1)
        com++;
    else
        pri++;
}
System.out.print("Composite number: " + com);
System.out.print("Prime number: " + pri);
```

2) MAXIMUM & MINIMUM OF SUM AND DIFFERENCE:-

```
int arr[] = {11, 16, 87, 36, 25, 89};
int len = arr.length;
for (int i=0; i<len; i++) {
    for (int j=i+1; j<len; j++)
    { if (arr[i] > arr[j]) {
        int temp = arr[i];
        arr[i] = arr[j];
        arr[j] = temp;
    }
}
```

```
int m = 1, n=3;
int max = arr [len - m];
int min = arr [n-1];
System.out.print (m+ " maximum number = " + max);
System.out.print ("\n" +n+ " minimum number = " + min);
int sum = max + min;
int Diff = max - min;
System.out.print ("\n Sum = " + sum);
System.out.print ("\n Difference = " + Diff);
```

3) MONEY DENOMINATION :-

```
int n1 = 500, d1 = 4, n2 = 100, d2 = 20, n3 = 200, d3 = 32, n4 = 2000, d4 = 1;
int total = (n1 * d1) + (n2 * d2) + (n3 * d3) + (n4 * d4);
System.out.print ("Total available Balance in ATM : " + total);
```

4) STRING PALINDROME OR NOT :-

```
String s1 = "MADAM";
String s2 = "";
int len = s1.length ();
for (int i = len - 1; i >= 0; i--)
{
    s2 = s2 + s1.charAt (i);
}
if (s1.equal (s2))
    System.out.print ("Palindrome");
else
    System.out.print ("Not a Palindrome");
```

5) CONVERT DECIMAL NUMBER TO BINARY AND OCTAL :-

```
int dec = 15;
String bin = Integer.toBinaryString (dec);
String oct = Integer.toOctalString (dec);
System.out.println ("Binary number = " + bin);
System.out.print ("octal number = " + oct);
```

⑥ EMPLOYEE

```
Scanner input = new Scanner (System.in);
int a,b;
double bonus=0;
System.out.print ("Enter the grade of the employee : ");
Char a1= input.next().charAt(0);
System.out.print ("Enter the salary of employee");
System.out.print (" ");
int b1= input.nextInt();
if (a1== 'A')
{
    bonus = bonus + b1 * (0.05);
    if (b1 <10000)
    {
        bonus = bonus + b1 * (0.02);
    }
    System.out.println ("salary = " b+1);
    System.out.println ("bonus = "+bonus);
    System.out.println ("total to be paid = "+ (b1+bonus));
}
else if (a1== 'B')
{
    bonus = b1 * (0.01);
    if (b1<10000)
    {
        bonus = bonus + b1 * (0.02);
    }
    System.out.println ("salary = "+b+1);
    System.out.println ("bonus = "+bonus);
    System.out.println ("total to be paid = "+ (b1+bonus));
} else {
    System.out.print ("Enter valid grade");
}
```

⑦ N PERFECT NUMBERS

```
Scanner input = new Scanner (System.in);
int n= input.nextInt();
int sum=0, temp=0;
for (int j=2; j<=1000; j++)
{
    if (n>temp)
       sum=1;
    for (int i=2; i<j; i++)
    {
        if (j%i==0)
            sum=sum+i;
    }
    if (sum==j)
    {
        System.out.print (j+" ");
        temp=temp+1;
    }
}
```

⑧ MARKS OF STUDENT :-

```
int a1=90;
int a2=92;
int a3=92;
int a4=93;
int total = (a1+a2+a3+a4);
float agg=total/4f;
System.out.println (total);
System.out.println (agg);
if (agg>75)
    System.out.println ("DISTINCTION");
else if (agg>=60 && agg<75)
    System.out.println ("First Division");
else if (agg>=50 && agg<60)
    System.out.println ("Second Division");
```

```
else if (agg >= 40 && agg <50)
    System.out.println ("Third Division");
else
    System.out.println ("Fail");
```

9) TAX AND INCOME :-

```
Scanner input = input Scanner;
int income = input.nextInt();
float tax;
if (income <= 150000)
    System.out.println("No tax");
else if (income >= 150000 && income <= 300000
    System.out.println ("Tax = " + income /10);
else if (income >= 300001 && income <= 500000)
    System.out.println("Tax " + income /20);
else
    System.out.println ("Tax = " + income /30);
```

10) MULTIPLICATION NUMBER M TO N :.

```
int M = 4;
int N = 5;
for (int i = 1; i <= N; i++)
{
    System.out.println (i+"x"+M+"=" + (i*M));
}
```