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Course:- Java programming
Course code:- CSA0954

Class test-1

① Write a program for Alphabet in reverse order?

Program:-

```
import java.util.Scanner,
Public class reverse {
Public static void main(string[] args) {
String str;
Char ch;
Scanner sc = new
Scanner(System.in);
  System.out.print("Enter a string: ");
  str = sc.nextLine();
  System.out.println("Reverse of a String "+str" is :");
  for(int j = str.length(); j>0; --j)
  {
  System.out.print(str.charAt(j-1));
  }
 }
}
```

Input:-

String: TEMPLE (or) Enter a string: TEMPLE

Output:-

Reverse of a string: ELPMET

② Write a program to print Fibonacci series?

Program:-

```
class Fibonacci {
public static void main (string args[])
{
int n1=0, n2=1, n3, i, count=10;
System.out.print(n1+" "+n2);
for(i=2; i<count; ++i)
{
n3=n1+n2;
System.out.print(" "+n3);
n1=n2;
n2=n3;
}
}
}
```

Output:-

0 1 1 2 3 5 8 13 21 34

③ Write a Java program to calculate LCM and GCD of a n=2.

Program:-

```
import java.util.*;
class lcmgcd
{
```

```
public static void main(String[] args)
{
int arr[] = {16, 20};
int lcm = arr[0];
int gcd = arr[0];
for(int i=1; i<arr.length; i++)
{
  gcd = findGCD(arr[i], lcm);
  lcm = (lcm*arr[i])/gcd;
}
System.out.println("LCM = " +lcm);
System.out.println("GCD = "+gcd);
}
public static int findGCD(int a, int b)
{
  if(b==0)
  return a;
  return findGCD(b, a%b);
}
}
```

Input:-

n = 2
number1 = 16
number2 = 20

Output:-

LCM = 80
GCD = 4

Main.java

Run

Output

```java
import java.util.Scanner;
public class reverse {
    public static void main(String[] args){
    String str;
    char ch;
    Scanner sc=new Scanner(System.in);
    System.out.print("Enter a string : ");
    str=sc.nextLine();
    System.out.println("Reverse of a String '"+str+"' is :");
    for(int j=str.length();j>0;--j) {
      System.out.print(str.charAt(j-1));
    }
  }
}
```

```
java -cp /tmp/bk2fb0Ptj9 reverse
Enter a string : TEMPLE
Reverse of a String 'TEMPLE' is :ELPMET
```

Main.java

Run

Output

```
class Fibonacci{
public static void main(String args[])
{
 int n1=0,n2=1,n3,i,count=10;
 System.out.print(n1+" "+n2);

 for(i=2;i<count;++i)
 {
  n3=n1+n2;
  System.out.print(" "+n3);
  n1=n2;
  n2=n3;
 }
}
}
```

```
java -cp /tmp/bk7tB0Ptj9 Fibonacci
0 1 1 2 3 5 8 13 21 34
```

Main.java

Run

Output

```java
import java.util.*;
class lcmgcd{
    public static void main(String[] args){
        int arr[]={16,20};
        int lcm=arr[0];
        int gcd=arr[0];
        for(int i=1;i<arr.length;i++){
            gcd=findGCD(arr[i],lcm);
            lcm=(lcm*arr[i])/gcd;
        }
       System.out.println("LCM="+lcm);
       System.out.println("GCD="+gcd);
    }
    public static int findGCD(int a,int b){
        if(b==0)
        return a;
        return findGCD(b,a%b);
    }
}
```

```
java -cp /tmp/bk2fa0Prj9 lcmgcd
LCM=80
GCD=4
```