Week 2 Programs

Name Karthik Deepak

Section- 3d

USN-1BM19CS200

1.Write a C/Java program to accept a number n from the user and print n rows of output

as given below if n=4.

1

2 3

4 5 6

7 8 9 10

class Rows{

public static void main(String args[]){

int s[][]=new int[4][];

s[0]=new int[1];

s[1]=new int[2];

s[2]=new int[3];

s[3]=new int[4];

int i,j,k=1;

for(i=0;i<4;i++)

for(j=0;j<i+1;j++){

s[i][j]=k;

k++;

}

for(i=0;i<4;i++){

for(j=0;j<i+1;j++)

System.out.print(s[i][j]+" ");

System.out.println();

}

}

}

Output:

2.Wriite a C/Java program to accept the CIE marks (Out of 50) and SEE marks (Out of

100) of a student and print his/her grade. Use if… elseif ladder

class Student{

public static void main(String args[]){

int m=30;

int mm=80;

int total=m+mm/2;

if (total>=90){

System.out.print("S GRADE \n");}

else if(total>=80&&total<90){

System.out.print("A GRADE \n");}

else if(total>=70&&total<80){

System.out.print("B GRADE \n");}

else if(total>=60&&total<70){

System.out.print("C GRADE \n");}

else if(total>=50&&total<60){

System.out.print("D GRADE \n"); }

else if(total>=40&&total<50){

System.out.print("E GRADE \n");}

else if (total>=30&&total<40){

System.out.print("F GRADE \n");}

}

}

Output:

3.Write a C/Java program to print the prime numbers between given two integers

(inclusive). Accept these two integers from the user.

class Prime

{

public static void main( String args[])

{

int a;

int b=20;

for(a=2;a<=b;a++)

{

int flag=0;

for(int k=2;k<=a/2;k++)

{

if(a%k==0)

flag=1;

break;

}

if(flag==0){

System.out.println(a + " ");}

}

}

}

Output:

4.Write a C/Java program which prints the area and volume of any one of the given

shapes given below. Accept the choice of the shape, appropriate inputs from the user,

calculate and display the area and the volume of the same. Repeat this with different

shapes till the user wishes to stop.

-Cylinder: Area : A=2πrh+2πr 2 Volume: V=πr 2 h

-Cone: Area: A=πr(r+ √(h 2 +r 2 )) Volume: V= πr 2 h/3

-Sphere: Area: A= 4πr 2 Volume: V= (4/3) πr

class AreaVol{

public static void main(String args[]){

double r=15,h=25;

System.out.println("Radius:" +r);

System.out.println("Height:" +h);

double cya=2\*3.14\*r\*h+2\*3.14\*r\*r;

double cyv=3.14\*r\*r+h;

double ca=3.14\*r\*r+3.14\*r\*Math.sqrt(4\*h+r\*r);

double cv=3.14\*r\*r\*h/3;

double sa=4\*3.14\*r\*r;

double sv=4/3\*3.14\*r\*r\*r;

System.out.println("Area of Cylinder :" +cya);

System.out.println("Volume of Cylinder :" +cyv);

System.out.println("Area of Cone :" +ca);

System.out.println("Volume of Cone :" +cv);

System.out.println("Area of Sphere :" +sa);

System.out.println("Volume of Sphere :" +sv);

}

}