1. **Write a Java program to create and throw custom exceptions?**

class TestException extends RuntimeException

{

}

class CAT

{

public static void main(String[] args)

{

throw new TestException ();

}

}

**2. Write a program to demonstrate method overriding?**

class Saranya{

public void party() {

System.*out*.println("Home");

}

}

class Priya extends Saranya{

public void party() {

System.*out*.println("Beach");

}

}

public class Overriding {

public static void main(String[] args) {

Saranya obj = new Priya();

obj.party();

}

}

**3. Write a Java program that sorts HashMap by value.?**

Import java.util.HashMap;

Import java.util.set;

class c{

public static void main(String[] args) {

HashMap h1=new HashMap(); h1.put(1,”Saranya”); h1.put(2,”Priya”); h1.put(3,”Vishnu”);

Set s=h1.keySet();

for(object i:s) {

System.out.println(i);

}

}

}

**4. Write a Java Program for Fibonacci series?**

class Fibonacci

{

public static void power(int x)

{

int f1=0; int f2=1;

int f3=0; while(f1<=x)

System.out.println(f1);

f3=f1+f2; f1=f2; f2=f3;

}

}

public static void main(String[] args)

{

Scanner sc=new Scanner(System.in);

System.out.println(“Enter value”); int a=sc.nextInt(); power(a);

}

}

}

**5. How to check Odd and Even Number in java.**

class L

{

public static void main(String[] args)

{

int i=1; while(i<=10)

{

if (i%2==0) {

System.out.println(i+”is an even number”);

} else {

System.out.println(i+”is an even number”);

}

i++;

}

}

}

**6. Check no is Armstrong or not in java Program?**

public class ArmStrongNumber {

public static void main(String[] args) {

int num = 153,temp1=num,temp2=num,count=0,sum=0;

while (num>0) {

num = num/10;

count++;

}

while (temp1>0) {

int last = temp1%10;

int prod = 1, x=last,n=count;

while (n>0) {

prod=prod\*x;

n--;

}

sum=sum+prod;

temp1 = temp1/10;

}

if (sum==temp2) {

System.*out*.println(temp2 + " is a Armstrong Number ");

}

else {

System.*out*.println(temp2 + " is not a Armstrong Number ");

}

}

}