Q. 1

MyArithException.java

package Day\_8;

public class MyArithException extends Exception {

public MyArithException(String s) {

super(s);

}

}

Calculator.java

package Day\_8;

public class Calculator {

public int caldouble(int a)throws MyArithException {

if(a == 0) {

throw new MyArithException("Zero not allowed");

}

else if(a<0) {

throw new MyArithException("Negative numbers are not allowed");

}

return a+a;

}

}

MyCalcApp.java

public class MyCalcApp {

public static void main(String[] args) throws MyArithException {

Calculator c = new Calculator();

System.out.println(c.caldouble(-5));

}

}

Q. 2

NumberNotDivisibleBySevenException.java

package Day\_8;

public class NumberNotDivisibleBySevenException extends Exception {

public NumberNotDivisibleBySevenException() {

super("Number is not divisible by 7");

}

}

MyMath.java

package Day\_8;

public class MyMath {

public int disp(int num)throws NumberNotDivisibleBySevenException {

int d = num/7;

if(num%7 !=0) {

throw new NumberNotDivisibleBySevenException();

}

return d;

}

}

Demo.java

package Day\_8;

public class Demo {

public static void main(String[] args) throws NumberNotDivisibleBySevenException {

MyMath m = new MyMath();

System.out.println(m.disp(5));

}

}

Q. 3

MyException.java

package Day\_8;

public class MyException extends Exception {

public MyException() {

super("Number should be less than 10");

}

}

Demo.java

package Day\_8;

import java.util.Scanner;

public class Demo {

public void show1() throws MyException {

show2();

}

public void show2() throws MyException {

show3();

}

public void show3() throws MyException {

Scanner sc = new Scanner(System.in);

int n = sc.nextInt();

if(n > 10) {

throw new MyException();

}

System.out.println(n);

}

public static void main(String[] args) throws MyException {

Demo d= new Demo();

d.show1();

}

}

Q. 4

InvalidLengthException.java

package Day\_8;

public class InvalidLengthException extends Exception {

public InvalidLengthException() {

super("Length should be greater than 5 and less than 9");

}

}

Authenticator.java

package Day\_8;

public class Authenticator {

public Authenticator(String password) throws InvalidLengthException{

if(password.length()<5 || password.length()>9) {

throw new InvalidLengthException();

}

demo();

}

public void demo() {

System.out.println("Successful Authentication");

}

public static void main(String[] args) throws InvalidLengthException {

String p = "12";

Authenticator a = new Authenticator(p);

System.out.println();

}

}

Q. 5

ResourceNotAllocatedException.java

package Day\_8;

public class ResourceNotAllocatedException extends Exception {

public ResourceNotAllocatedException(String s) {

super("not sufficient space");

}

}

MyResource.java

package Day\_8;

public class MyResource implements AutoCloseable

{

public MyResource(int capacity) throws ResourceNotAllocatedException

{

if(capacity>100)

{

throw new ResourceNotAllocatedException("not sufficient space");

}

}

void disp()

{

System.out.println("successful");

}

@Override

public void close() {

System.out.println("resource is closed");

}

}

Demo.java

package Day\_8;

public class Demo {

public static void main(String[] args) throws ResourceNotAllocatedException {

MyResource m = new MyResource(101);

m.disp();

}

}