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| Course- BTech | Type- Core |
| Course Code- **CSET** | Course Name- **Object Oriented Programming Using Java** |
| Year- First | Semester- Even Batch- BTech 2nd Semester |

**Tutorial-10**

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| **Tutorial No.** | **Name** | **CO1** | **CO2** | **CO3** |
| **10** | **Exception Handling** | **--** |  | **--** |

**Objective:** The main objective of this tutorial is to learn about the exception handling of Java language.

* 1. **What will be the Output of the below code:**

public class Main

{

public static void m1()

{

System.out.println("Bennett");

m2();

}

public static void m2()

{

System.out.println("University");

int i = 10/0;

System.out.println("Division successful");

}

public static void main(String[] args) {

m1();

}

}

**Solution**:

Bennett

University

Exception in thread "main" java.lang.ArithmeticException: / by zero

at Main.m2(Main.java:19)

at Main.m1(Main.java:14)

at Main.main(Main.java:23)

**9.2 What will be the Output of the below code:**

import java.io.\*;

public class Main

{

public static void main(String[] args) {

System.out.println("File example");

FileReader fr = new FileReader("C:\\temp\\bennett.txt");

BufferedReader bf = new BufferedReader(fr);

String str = bf.readLine();

bf.close();

}

}

**Soln:** Main.java:15: error: unreported exception FileNotFoundException; must be caught or declared to be thrown

FileReader fr = new FileReader("C:\\temp\\bennett.txt");

^

Main.java:18: error: unreported exception IOException; must be caught or declared to be thrown

String str = bf.readLine();

**9.3 Identify error in the following code?**

public class Main

{

public static void main(String[] args) {

try{

System.out.println("Bennett");

int i = 10/0;

System.out.println("University");

}

catch(NullPointerException e)

{

System.out.println("Exception" + e.getMessage());

}

}

}

**Soln**:

Bennett

Exception in thread "main" java.lang.ArithmeticException: / by zero

at Main.main(Main.java:16)

9.4 **What is the result of the following code?**

public class Main

{

public static void main(String[] args) {

try{

System.out.println("Bennett");

String s = null;

System.out.println(s.length());

}

catch(Exception e)

{

System.out.println("Exception" + e.getMessage());

}

catch(NullPointerException e)

{

System.out.println("Exception" + e.getMessage());

}

}

}

**Soln**: Main.java:24: error: exception NullPointerException has already been caught

catch(NullPointerException e)

**9.5 What is output of below code?**

public class Main

{

public static void main(String[] args) {

try{

try{

System.out.println("Bennett");

String s = null;

System.out.println(s.length());

}

catch(NullPointerException e)

{

System.out.println("Exception: " + e.getMessage());

}

try{

int a[] = new int[5];

a[6] = 10;

}

catch(ArrayIndexOutOfBoundsException e)

{

System.out.println("Exception: " + e.getMessage());

}

}

catch(Exception e)

{

}

}

}

**Soln**: Bennett

Exception: null

Exception: Index 6 out of bounds for length 5

**9.6 What is output of below code?**

class Main{

public static void main(String args[]){

try{

int data=25/0;

System.out.println(data);

}

finally{

System.out.println("finally block is always executed");

}

System.out.println("rest of the code...");

}

}

**Soln**: finally block is always executed

Exception in thread "main" java.lang.ArithmeticException: / by zero

at Main.main(Main.java:6)

**9.7 What is output of below code?**

public class Main{

static void validate(int age){

if(age<18)

throw new ArithmeticException("not valid");

else

System.out.println("welcome to vote");

}

public static void main(String args[]){

validate(13);

System.out.println("rest of the code...");

}

}

**Soln**: Exception in thread "main" java.lang.ArithmeticException: not valid

at Main.validate(Main.java:4)

at Main.main(Main.java:11)

**9.8 What will be output of below code?**

class VotingAgeException extends Exception{

public String getMessage()

{

return "Age exception";

}

}

public class Main{

static void validate(int age){

try{

if(age<18)

throw new VotingAgeException();

else

System.out.println("welcome to vote");

}

catch(VotingAgeException e)

{

System.out.println(e.getMessage());

}

}

public static void main(String args[]){

validate(13);

System.out.println("rest of the code...");

}

}

**Soln**: Age exception

rest of the code...

**9.9 What is output of below code?**

import java.io.IOException;

public class Main{

void m() throws IOException{

throw new IOException("device error");//checked exception

}

void n() throws IOException{

m();

}

void p(){

try{

n();

}catch(Exception e)

{

System.out.println("exception handled");

}

}

public static void main(String args[]){

Main obj=new Main();

obj.p();

System.out.println("normal flow...");

}

}

**Soln**: exception handled

normal flow...