

Part – 4

Question 1	WAP to show the try - catch block to catch the different types of exception.
Code :	<pre>//WAP to show the try - catch block to catch the different types of exception. public class question1 { public static void main(String[] args) { // unchecked exception try { System.out.println(" the answer of 10/0 is " + 10/0); } catch (ArithmeticException e) { System.out.println(e); } } }</pre> <p>Output:</p> <pre>C:\Users\kalp\practicalfile_part_4\out\production\practicalfile_part_4 question1 java.lang.ArithmeticException: / by zero</pre>
Question 2	WAP to generate user defined exception using “throw” and “throws” keyword
Code :	<p>Using throw keyword :</p> <pre>// using throw public class TestThrowAndThrows { public static void checkage(int a) { if(a < 18){ throw new ArithmeticException("you are not mature!"); } else { System.out.println("you are mature!"); } } public static void main(String[] args) { checkage(17); } }</pre> <p>Using throws keyword :</p> <pre>// using throws public class Throwsexample { static void checkage(int a) throws ArithmeticException { if(a <18){ throw new ArithmeticException("you are not mature!"); } } }</pre>

	<pre> }else { System.out.println("you are mature!"); } } public static void main(String[] args) { checkage(15); } } </pre> <p>Output: Of throw</p> <pre> C:\Users\kalp\practicalfile_part_4\out\production \practicalfile_part_4 TestThrowAndThrows Exception in thread "main" java.lang .ArithmeticException Create breakpoint : you are not mature! at TestThrowAndThrows.checkage(TestThrowAndThrows.java:8) at TestThrowAndThrows.main(TestThrowAndThrows.java:16) </pre> <p>Of throws</p> <pre> C:\Users\kalp\practicalfile_part_4\out\production \practicalfile_part_4 Throwsexample Exception in thread "main" java.lang .ArithmeticException Create breakpoint : you are not mature! at Throwsexample.checkage(Throwsexample.java:5) at Throwsexample.main(Throwsexample.java:12) </pre>
Question 3	<p>Write a program that raises two exceptions. Specify two 'catch' clauses for the two exceptions. Each 'catch' block handles a different type of exception. For example the exception could be 'ArithmeticException' and 'ArrayIndexOutOfBoundsException'. Display a message in the 'finally' block.</p>
Code :	<pre> public class MultipleCatchBlock1 { public static void main(String[] args) { try{ int a=10/0; } catch(ArithmeticException e) { System.out.println("Arithmetic Exception occurs"); } catch(ArrayIndexOutOfBoundsException e) { System.out.println("ArrayIndexOutOfBounds Exception occurs"); } catch(Exception e) </pre>

```
{  
    System.out.println("main Exception occurs");  
}  
System.out.println("end of the code");  
}
```

Output :

```
C:\Users\kalp\practicalfile_part_4\out\production  
\practicalfile_part_4 MultipleCatchBlock1  
Arithmetic Exception occurs  
end of the code
```