

## Quiz2 java2

Question 1 : Consider the following java program :

```
5 class myEx1 extends RuntimeException
6 {
7 public myEx1(String m ){ super(m); }
8 }
9
10 class myEx2 extends Exception
11 {
12 public myEx2(String m ){ super(m); }
13 }
14
15
16 public class testProgram {
17 static int i = -5 ;
18 public static void main(String[] args) {
19 try {
20 System.out.println(M2());
21 i = 5 ;
22 System.out.println(M3()); }
23 catch(Exception e ){
24 System.out.println("Catch in main");
25 System.out.println("bye bye"); }
26 }
27
28
29 public static int M1(int a )throws myEx2{
30 if( a % 2 == 0)
31 throw new myEx1("it is even");
32 else
33 if(a < 5 )
34 throw new myEx2("odd");
35 return 100;
36 }
37
38
39 public static String M2(){
40 try{
41 i = M1(i);
42 if(i > 0)
43 throw new myEx2("it is positive");
44 return "try";
45 }
46 catch(myEx2 exp) {
47 System.out.println(exp.getMessage() + " catch in M2"); }
48 catch(myEx1 exp){
49 System.out.println(exp.getMessage() + " catch in M2"); }
50 finally{
51 System.out.println("finally in m2 " + i ); }
52 return "catched";
53 }
54
55
56 public static int M3(){
57 int num ;
58 try{
59 num = Integer.parseInt(M2() );
60 }catch(NumberFormatException exp ){
61 System.out.println("not a numeric string");
62 throw new myEx1("Exception one "); }
63 return num ; } }
```

### Find output

odd catch in M2

finally in m2 -5

caught

it is positive catch in M2

finally in m2 100

not a numeric string

Catch in main

bye bye

=====

**Consider the code from Question1 , state whether the following statements are true or false**

1- myEx2 exception is a checked exception ( **true** )

2- if we remove catch(myEx1 exp) from M2 method , the compiler will produce compilation error .(**false**)

**Question2 : Mention if the following code fragments are legal or illegal : explain your choice.**

| Code fragment   | Legal/Illegal | Explanation  |
|---|---------------|--|
| <pre>public interface one{     public void A() ; } public interface tow extends one{     public double B();     private void c(); } }</pre>   | Illegal       | Because method c() is private Interface will not accept private nethod                             |
| <pre>public interface A{     public void x() ; }  public interface B extends A{     public double y();     pubilc void z(); }  public class AB implements A, B {     public double y() { //.... }     public void x() { } }</pre> | Illegal       | Class AB as a sup must implement all method in A and B<br>But method z() did not found in AB class |

**Question 3 :** let method M in class B check on x , if x is negative then throw an exception of type NegativException . then throw to calling enviroment (do not catch it in method M )

```
1 import java.io.IOException;
2
3
4 class NegativException extends IOException
5 {
6
7 }
8 interface A
9 {
10     public void M(int x ) throws NegativException;
11 }
12
13 class B implements A
14 {
15     public void M(int x ) throws NegativException
16     {
17         if( x < 0 )
18             throw new NegativException();
19     }
20 }
```