

## JAVA Programming Language Homework III — Array, Exception

Student ID:                      Name:

1. Given the following Java code:

```
1.    class C {
2.        public static void main(String[] args) {
3.            int a=0, b=5;
4.            try {
5.                System.out.print(a/b+b/a);
6.            } catch {
7.                System.out.println("Exceptions!!!");
8.            }
9.        }
10.    }
```

What is the result of attempting to compile the program?

- A. Prints: Exceptions!!!
- B. Prints Nothing
- C. Compiler Error
- D. Runtime Error
- E. None of the above

**Answer:**

2. Given the following Java code:

```
1.    class A {
2.        public static void main(String[] args) {
3.            int a=0, b=5;
4.            String c[] = {"A", "B", "C"};
5.            try {
6.                for(int i=1; i<4; i++) {
7.                    System.out.print(c[i]);
8.                }
9.                System.out.print(a/b+b/a);
10.           }
11.       catch(ArithmeticException e) {
```

```
12.         System.out.println("D");
13.     }
14.         catch(ArrayIndexOutOfBoundsException e) {
15.             System.out.println("E");
16.         }
17.     }
18. }
```

What is the result of attempting to compile the program?

- A. Prints: ABC
- B. Prints: ABD
- C. Prints: BCE
- D. Prints: BCDE
- E. Compiler Error

**Answer:**

**3. Given the following Java code:**

```
1.     class A {
2.         public static void main(String[] args){
3.             int a=0, b=5;
4.             String c[] = {"A", "B", "C"};
5.             try {
6.                 System.out.print(c[a/b]);
7.                 try {
8.                     for(int i=0; i<4; i++) {
9.                         System.out.print(c[i]);
10.                    }
11.                }
12.            } catch (Exception e)
13.            {
14.                System.out.println("D");
15.            }
16.            finally {
17.                System.out.println("E");
18.            }
```

```
19.         }
20.         catch (Exception e) {
21.             System.out.println("F");
22.         }
23.         finally {
24.             System.out.println("G");
25.         }
26.     }
27. }
```

What is the result?

- A. Prints: AABCG
- B. Prints: ABCDG
- C. Prints: AABCDG
- D. Prints: AABCDEG
- E. Prints: AABCDEFG

**Answer:**

4. Given the following Java code:

```
1.     class Num {
2.         public static void main( String[] args ) {
3.             int src[] = {10, 9, 8, 7, 6, 5, 4, 3, 2, 1};
4.             int res[] = {1, 2, 3, 4, 5};
5.             System.arraycopy(src, 0, res, 0, src.length);
6.             for(int i=0; i<res.length; i++) {
7.                 System.out.print(res[i]);
8.             }
9.         }
10.    }
```

What is the result?

- A. 10987654321
- B. 10987612345
- C. 12345612345
- D. Compiler error

E. Runtime exception

**Answer:**

5. Given the following Java code:

```
1. class A {  
2.     public static void main (String[] args) {  
3.         byte a[] = new byte[2];  
4.         long b[] = new long[2];  
5.         float c[] = new float[2];  
6.         Object d[] = new Object[2];  
7.         System.out.print(a[1]+",""+b[1]+",""+c[1]+",""+d[1]);  
8.     }  
9. }
```

What is the result?

- A. Prints: 0,0,0,null
- B. Prints: 0,0,0.0,null
- C. Prints: 0,0,0,0
- D. Prints: null,null,null,null
- E. The code runs with no output.

**Answer:**

6. Given the following Java code:

```
1. class A {  
2.     public static void main(String[] args) {  
3.         int[ ] var1;  
4.         int[5] var2;  
5.         int[] var3;  
6.         int var4[];  
7.     }  
8. }
```

What is the result?

- A. compile-time errors occur at line 3
- B. compile-time errors occur at line 4
- C. compile-time errors occur at line 5
- D. compile-time errors occur at line 6
- E. None of the above

**Answer:**

7. Given the following Java code:

```
1. class A {  
2.     static void my() throws ArithmeticException {  
3.         System.out.print("A");  
4.         throw new ArithmeticException("A");  
5.     }  
6.     public static void main (String args []) {  
7.         try {  
8.             my();  
9.         }  
10.        catch (Exception e) {  
11.            System.out.print("B");  
12.        }  
13.        finally {  
14.            System.out.print("C");  
15.        }  
16.    }  
17. }
```

What is the result?

- A. Prints: A
- B. Prints: AC
- C. Prints: ABC
- D. Prints: AABC
- E. Prints: C

**Answer:**

8. Given the following Java code:

```
1.    class B extends Exception {}
2.    class C extends B {}
3.    class D extends C {}
4.    class A {
5.        public static void main(String args[]) {
6.            int a,b,c,d,x,y,z;
7.            a = b = c = d = x = y = 0;
8.            z = 1;
9.            try {
10.                try {
11.                    switch(z) {
12.                        case 1: throw new B();
13.                        case 2: throw new C();
14.                        case 3: throw new D();
15.                        case 4: throw new Exception();
16.                    }
17.                    a++;
18.                }
19.                catch ( C e ) {b++;}
20.                finally{c++;}
21.            }
22.            catch ( B e ) {d++;}
23.            catch ( Exception e ) {x++;}
24.            finally {y++;}
25.            System.out.print(a+",""+b+",""+c+",""+d+",""+x+",""+y);
26.        }
27.    }
```

What is the result?

- A. 0,0,1,1,0,1
- B. 0,1,0,1,1,0
- C. 0,0,1,1,0,1
- D. 0,1,1,1,1,1
- E. 1,1,0,1,0,0

**Answer:**

9. Given the following Java code:

```
1.    class B extends Exception {
2.        public void myMethod( ) throws RuntimeException { }
3.    }
4.
5.    class A extend B{
6.        public void myMethod( ) throws Exception { }
7.        public static void main (String[] args) { }
8.    }
```

Compile-time errors occur at which lines?

- A. 1
- B. 2
- C. 6
- D. 7
- E. None of the above

**Answer:**

10. Given the following Java code:

```
1.    class A {
2.        public static void main (String[] args) {
3.            int a=1, b=0;
4.            int c[] = {1,2,3};
5.            try {
6.                System.out.print(c[1]);
7.                try {
8.                    System.out.print(a/b+b/a);
9.                }
10.           catch (ArithmeticException e)
11.           {
12.               System.out.print("C");
13.           }
14.       }
15.       catch (ArrayIndexOutOfBoundsException e) {
16.           System.out.print("A");
```

```
17.         }
18.         finally {
19.             System.out.print("B");
20.         }
21.     }
22. }
```

What is the result?

- (A) 1BC
- (B) 1CB
- (C) 2BC
- (D) 2CB
- (E) 2AC

**Answer:**