

**Given**

```
1. public class Whizlabs {  
2.  
3.     public static void main(String args[]){  
4.         Whizlabs.Test t = new Whizlabs().new Test();  
5.         t.x = 2;  
6.         t.in();  
7.     }  
8.  
9.     class Test{  
10.         private int x = 1;  
11.         public void in(){  
12.             System.out.println(x);  
13.         }  
14.     }  
15. }
```

**What is the result?**

Please select :

- A. 2
- B. 1
- C. Compilation fails due to error at line 4.
- D. Compilation fails due to error at line 5.
- E. Compilation fails due to multiple errors.

**Given :**

```
1.  public class Outer{  
2.  
3.      public static void main(String[] args) {  
4.          Inner in = new Inner();  
5.          in.y = 10;  
6.          in.print();  
7.      }  
8.  
9.      class Inner{  
10.         private int y = 0;  
11.         public void print(){  
12.             System.out.println(y);  
13.         }  
14.     }  
15. }
```

**What is the result?**

Please select :

- A. **10**
- B. **0**
- C. **Compilation fails due to error at line 4.**
- D. **Compilation fails due to error at line 5.**
- E. **Compilation fails due to multiple errors.**

**Given**

```
1.  public class Whizlab{  
2.  
3.      public static void main(String args[]){  
4.          if(Move.getSpeed() > 10){  
5.              System.out.println("Run");  
6.          }else{  
7.              System.out.println("Walk");  
8.          }  
9.      }  
10.  
11.     interface Move {  
12.         public static int getSpeed() {  
13.             return 10;  
14.         }  
15.  
16.         public default String toString(){  
17.             return "move";  
18.         }  
19.     }  
20. }
```

**What is the result?**

Please select :

- A. Run
- B. Walk
- C. Compilation fails due to an error on line 4.
- D. Compilation fails due to an error on line 16.
- E. Compilation fails due to multiple errors.

**Suppose following is valid code**

*Consumer<String> func = System.out::print;*

**Which of the following could be the functional method of Consumer?**

Please select :

- A. **public abstract void accept(T t);**
- B. **public String accept();**
- C. **public abstract void accept();**
- D. **public abstract String accept();**
- E. **public abstract String accept(String t);**

## Given

```
1. interface Switchable{  
2.     void sw(int i);  
3. }  
4. abstract class Switch{  
5.     abstract void sw(int i);  
6. }  
7. class It _____ {  
8.  
9.     public void sw(int i){}  
10.  
11.    public static void main(String []arg){  
12.        System.out.print("A");  
13.    }  
14. }
```

Which is true?

Please select :

- A. At line 7 extending the abstract class "Switch" is more appreciate than implementing the interface "Switchable"
- B. At line 7 implementing the interface "Switchable" is more appreciate than extending the abstract class "Switch"
- C. At line 7 implementing the interface or extending the interface won't give us any advantage over another.
- D. Since the both the interface and the abstract class are abstract, both of them will provide same flexibility.
- E. Implementing or extending will fail this code from compiling.

**Consider the following three statements about JDBC API.**

1. **Using the JDBC API, we can only access relational databases.**
2. **The JDBC API is included only in java enterprise edition.**
3. **The JDBC stands for java database connectivity.**

**Which of the above statements can be considered as true?**

Please select :

- A. Only I.
- B. Only I and III.
- C. Only II and III.
- D. Only II and III.
- E. Only III.
- F. None

**Given**

```
1. import java.sql.*;
2. public class Pro2{
3.
4.     public static void main(String []args){
5.         DBConnect dc = new DBConnect();
6.     }
7. }
8.
9. class DBConnect{
10.    private Connection con;
11.    public DBConnect(){
12.        try{
13.            Class.forName("com.mysql.jdbc.Driver");
14.            con =
15.                DriverManager.getConnection("jdbc:mysql://localhost/whiz","root","whizlabs");
16.        }catch(ClassNotFoundException e){
17.            System.out.print(e);
18.        }
19.    }
}
```

*Note: Assume that the hostname "localhost" exists and it uses mysql server and there is a database called "whiz". The password of the "root" user of the working mysql instance is "whizlabs".*

**Which of the following is true?**

Please select :

- A. **Compilation succeeds.**
- B. **An exception is thrown at the runtime.**
- C. **Compilation fails due to error at line 14.**
- D. **Compilation fails due to multiple errors.**

**Consider following four steps for establishing a JDBC connection.**

1. Importing JDBC Packages.
2. Formulating a database URL.
3. Calling the "getConnection()" method of the java.sql.DriverManager class.
4. Registering JDBC Driver.

**Which of the following shows correct order of above four steps?**

Please select :

- A. 1, 2, 3, 4.
- B. 4, 3, 2, 1.
- C. 1, 2, 4, 3.
- D. 1, 3, 4, 2.
- E. 1, 4, 2, 3.

**Given**

```
1. import java.sql.*;
2. public class Prof{
3.     public static void main(String []args){
4.         DBConnect dc = new DBConnect();
5.         dc.getUID();
6.     }
7. }
8.
9. class DBConnect{
10.    private Connection con;
11.    private Statement stmt;
12.    private ResultSet rs;
13.
14.    public DBConnect(){
15.        // Assume: A connection object and a Statement object are successfully created in this constructor.
16.    }
17.
18.    public void getUID(){
19.        try{
20.            String query = "SELECT ID FROM users";
21.            rs = stmt.executeQuery(query);
22.            while(rs.next()){
23.                System.out.print(rs.getInt(1) + " ");
24.            }
25.        }catch(Exception e){
26.            System.out.print("error while trying to connect to execute query");
27.        }finally{
28.            try{
29.                con.close();
30.            }catch(Exception e){
31.                System.out.print("error while closing");
32.            }
33.        }
34.    }
35. }
```

Note: You can consider given table as the "users" table.

ID	Fname	Lname	Jdate
1	Buddhika	Livera	2012-10-01
2	Piumi	Rekha	2012-10-04
7	Clerk	Kent	2012-10-11
8	Oliver	Queen	2012-10-14

Which of the following is true?

Please select :

- A. Compilation succeeds but no output will be provided.
- B. 1 will be printed as the output.
- C. 1, 2, 7, 8 will be printed as the output.
- D. Error while trying to execute query will be printed as the output.
- E. Compilation fails due to error at line 23.

**Which of the following isolation level will block all kind of reads on a row until the transaction is committed.**

Please select :

- A. TRANSACTION\_READ\_COMMITTED
- B. TRANSACTION\_READ\_UNCOMMITTED
- C. TRANSACTION\_REPEATABLE\_READ
- D. TRANSACTION\_SERIALIZABLE
- E. TRANSACTION\_READ

**What are the incorrect statements?**

- I. Java.lang.Exception class has only 4 constructors.
- II. One constructor of Java.lang.Exception takes a String as the parameter.
- III. If we invoke the "Exception()" constructor of the Java.lang.Exception class, We can Construct a new exception with the specified detail message..
- IV. If we invoke the "Exception(String message)" constructor of the Java.lang.Exception class, We can Construct a new exception with the specified detail message.

Please select :

- A. Only I & II
- B. Only II and IV
- C. Only II and III
- D. Only III
- E. Only I and III.
- F. All

**Given**

```
1. class Ex6{
2.     public static void main(String args[]){
3.         try{
4.             new Ex6().meth();
5.         }catch(ArithmetricException e){
6.             System.out.print("Arithmetric");
7.         }finally{
8.             System.out.print("final 1");
9.         }catch(Exception e){
10.             System.out.print("Exception");
11.         }finally{
12.             System.out.print("final 2");
13.         }
14.     }
15.
16.     public void meth()throws ArithmetricException{
17.         for(int x=0;x<5;x++){
18.             int y = (int)5/x;
19.             System.out.print(x);
20.         }
21.     }
22. }
```

**What is the output?**

Please select :

- A. Arithmetic final 1
- B. Exception final 2
- C. Arithmetic final 2
- D. Compilation fails.
- E. Arithmetic

**Given**

```
1. import java.io.*;
2. class NotInRangeException extends IOException{
3. }
4.
5. class Employee{
6.     int age;
7.     public boolean setAge(int ae) throws NotInRangeException{
8.         if(ae < 18 || ae > 60){
9.             throw new NotInRangeException();
10.        }else{
11.            age = ae;
12.            return true;
13.        }
14.    }
15. }
16. public class ETest4{
17.     public static void main(String [] args){
18.         BufferedReader br = new BufferedReader(new InputStreamReader(System.in));
19.         Employee d = new Employee();
20.         System.out.print("Enter the age : ");
21.         try{
22.             br.readLine();
23.             d.setAge(5);
24.         }catch(IOException E){
25.             System.out.print(E);
26.         }catch(NotInRangeException E){
27.             System.out.print(E);
28.         }
29.     }
30. }
```

**Which is true?**

Please select :

- A. There is no constructor in `java.lang.IOException` class which takes a noting so code fails to compile.
- B. We can't create custom exception by extending `java.io.IOException` class so code fails to compile.
- C. Compilation fails due to error on line 26.
- D. Compilation succeeds and if we enter a number less than 18, a "NotInRangeException" will be thrown.
- E. The "NotInRangeException" is unchecked exception.

**Which of the following prints 'Mistake' with the assertion failure when the number is positive? (choose 2)**

Please select :

- A. **assert n < 0: "Mistake";**
- B. **assert n < 0, "Mistake";**
- C. **assert n < 0 ("Mistake");**
- D. **assert(n < 0): "Mistake";**
- E. **assert(n < 0, "Mistake");**

**Consider following three statements.**

1. A try with resources statement without a catch block requires a finally block.
2. A try with resources statement without a finally block requires a catch block.
3. A try with resources statement with only one statement can omit the {}

Please select :

- A. Only I.
- B. Only III.
- C. Only I and II.
- D. Only II and III.
- E. None of above

## Given

```
1. //Assume all necessary importing have done
2. public class Whizlab{
3.
4.     public static void main(String[] args){
5.
6.         Set<String> list = new HashSet<String>();
7.
8.         list.add("1");
9.         list.add("2");
10.        list.add("3");
11.        list.add("1");
12.
13.        list.forEach(System.out::print);
14.    }
15. }
```

What is the output?

Please select :

- A. 1231
- B. 123
- C. No output.
- D. An exception is thrown.
- E. Compilation fails due to error at line 13.

**Given :**

```
1. import java.util.ArrayList;
2. import java.util.List;
3. import java.util.function.Consumer;
4. import java.util.function.Predicate;
5.
6. public class Whizlab{
7.
8.     public static void main(String[] args){
9.
10.         List<Integer> numbers = new ArrayList<>();
11.
12.         numbers.add(1);
13.         numbers.add(7);
14.         numbers.add(4);
15.         numbers.add(3);
16.         numbers.add(5);
17.
18.         Predicate<Integer> predit = p -> p > 4;
19.         Consumer<Integer> cons = System.out::print;
20.
21.         numbers.stream().filter(predit.negate()).forEach(cons);
22.     }
23. }
```

**What is the output?**

Please select :

- A. 17435
- B. 143.
- C. 75
- D. Compilation fails due to error at line 19.
- E. Compilation fails due to error at line 21.

**Given**

```
1. import java.util.stream.Stream;
2.
3. public class Whizlab{
4.
5.     public static void main(String[] args) {
6.         Stream<String> strs = Stream.of("1", "2", "3");
7.         System.out.println(strs.peek(s -> System.out.print(s)).count());
8.     }
9. }
```

**What is the output?**

Please select :

- A. 123
- B. 3
- C. 1233
- D. An Exception.
- E. Compilation fails

## Given

```
1. import java.util.List;
2. import java.util.ArrayList;
3. public class Whizlab{
4.     public static void main(String[] args) {
5.         List<String> list = new ArrayList<>();
6.         list.add("A");
7.         list.add("B");
8.         list.add("C");
9.         list.add("D");
10.        list.replaceAll(in -> in.toUpperCase());
11.        list.forEach(System.out::print);
12.    }
13. }
```

## What is the output?

Please select :

- A. ABCD
- B. abcd
- C. An Exception.
- D. Compilation fails due to line 12.

**Given**

```
1. import java.util.List;
2. import java.util.function.Predicate;
3.
4. public class Whizlab{
5.
6.     public static void main(String[] args){
7.
8.         List<Integer> numbers = new ArrayList<>();
9.
10.        numbers.add(10);
11.        numbers.add(11);
12.        numbers.add(13);
13.        numbers.add(19);
14.        numbers.add(5);
15.
16.        Predicate<Integer> predit = p -> p > 10;
17.
18.        numbers.stream().filter(predit);
19.
20.        System.out.println(numbers);
21.    }
22.}
```

**What is the output?**

Please select :

- A. [10, 5]
- B. [11, 13, 19]
- C. [10, 11, 13, 19, 5]
- D. Compilation fails due to error at line 16.
- E. Compilation fails due to error at line 18.

**Given**

```
1. import java.util.*;
2. class Dog{
3.     String name;
4.     int age;
5.     String owner;
6.     Dog(String n,String o,int a){
7.         name = n;    owner = o;    age=a;
8.     }
9.     public String toString(){
10.        return owner;
11.    }
12. }
13. public class DTest2{
14.     public static void main(String [] args){
15.         ArrayList<Dog> doglist = new ArrayList<Dog>();
16.         doglist.add(new Dog("Lazy","John",3));
17.         doglist.add(new Dog("White","Henry",2));
18.         doglist.add(new Dog("Blaky","Bert",5));
19.         doglist.add(new Dog("Tazan","Jack",1));
20.         Sort1 s1 = new Sort1();
21.         Collections.sort(doglist , s1);
22.         System.out.print(doglist);
23.         Sort2 s2 = new Sort2();
24.         Collections.sort(doglist , s2);
25.         System.out.print(doglist);
26.
27.     static class Sort1 implements Comparator<Dog>{
28.         public int compare(Dog first,Dog second){
29.             return first.name.compareTo(second.name);
30.         }
31.     }
32.     static class Sort2 implements Comparator<Dog>{
33.         public int compare(Dog first,Dog second){
34.             return first.owner.compareTo(second.owner);
35.         }
36.     }
37. }
```

**Which is the result? (Choose 2)**

Please select :

- A. [Bert, John, Jack, Henry][Bert, Henry, Jack, John]
- B. [Henry, Jack, John, Bert][Bert, John, Jack, Henry]
- C. Compilation succeeds.
- D. In the java.util.Collections class, there is no overloaded version of the "sort()" method which can take a List and a Comparator as parameters
- E. Compilation fails

Which of the following statements can't be inserted in the blank line so that the code will compile Successfully?

1. **public interface Hopable {}**
2. **public class Frog implements Hopable {**
- 3.
4.     **public static void main(String[] args) {**
5.         **\_\_\_\_\_ frog = new AsianFrog();**
6.     **}**
7. **}**
8. **public class HornedFrog extends Frog {}**

**public class AsianFrog extends Frog {}**

Please select :

- A. **Frog**
- B. **AsianFrog**
- C. **HornedFrog**
- D. **Hopable**
- E. **Object**

**Which three scenarios would best benefit from using a singleton pattern? (Choose two.)**

Please select :

- A. Create read-only objects that are thread-safe.
- B. Manage a reusable cache of objects.
- C. Ensure that all objects are lazily instantiated.
- D. Manage write access to a log file.
- E. Allow multiple instances of a static object to be managed in memory

## **Which of the following statements are true about the equals() method?**

Please select :

- A. If equals(null) is called, the method should throw an exception.
- B. If equals(null) is called, the method should return false.
- C. If equals(null) is called, the method should return true.
- D. If equals() is passed the wrong type, the method should throw an exception.
- E. If equals() is passed the wrong type, the method should return true.

**Given**

```
1. public class Whiz{  
2.  
3.     static int x;  
4.  
5.     public static void main(String[] args){  
6.         Whiz w1 = new Whiz();  
7.         Whiz w2 = new Whiz();  
8.         Whiz w3 = new Whiz();  
9.         w1.method();  
10.        w2.method();  
11.        w3.method();  
12.    }  
13.  
14.    public void method(){  
15.        while(++x<3){  
16.            System.out.print("A");  
17.        }  
18.    }  
19. }
```

**What is the output?**

Please select :

- A. **AAAAAA**
- B. **AA**
- C. **No output.**
- D. **Compilation fails due to error on line 15.**
- E. **Compilation fails due to multiple errors.**

**Given :**

```
1. class A implements Runnable{  
2.     public void run(){  
3.         try{  
4.             for(String x:new String []{"On your mark","Get set"}){  
5.                 System.out.print(x);  
6.                 Thread.currentThread().sleep(1000);  
7.             }  
8.         }catch(InterruptedException e){}  
9.             System.out.print("Go");  
10.        }  
11.    }  
12.  
13.    class Ttest{  
14.        public static void main(String [] args){  
15.            A a= new A();  
16.            Thread t=new Thread(a);  
17.            t.start();  
18.        }  
19.    }  
20.
```

**What is the result?**

Please select :

- A. Strings "On your mark", "Get set" will be printed, with at least one second interval between them.
- B. Strings "On your mark" and "Get set" will be printed, with at least 1000 seconds interval between them.
- C. Strings "On your mark", "Get set" will be printed, with at most one second interval between them.
- D. Compilation fails.
- E. An uncaught exception is thrown at runtime.

## Which is true regarding following code fragment?

```
Thread tmine = new Thread();
tmine.start();
tmine.join(2000);
```

Please select :

- A. This code will move currently running thread to the "blocked" state and wait there at least 2 seconds before returning to the "Runnable" state.
- B. Currently running thread will move to the "Blocked" state after calling the join and may return to the "Runnable" state after 2 seconds or after the "tmine" thread finished.
- C. Currently running thread will move to "Runnable" state after calling the join and may return to the "running" state after 2 seconds.
- D. Currently running thread will move to "Blocked" state after calling the join and may return to the "Runnable" state after 2 seconds late of finishing the "tmine" thread.
- E. There is no overloaded version of the "join()" method which can take long value.

**Assume that there are two private integer variables called i and j in your class. Which of the following will prevent the memory consistency error?**

Please select :

- A. **public double divide(){synchronized(l,j) {return (i/j);}}**  
**public void set(int i, int j){ synchronized(l,j) {this.i =l; this.j=j; }}**
- B. **public double divide(){synchronized(i) {return (i/j);}}**  
**public void set(int i, int j){ synchronized(j) {this.i =l; this.j=j; }}**
- C. **public synchronized(this) double divide(){return (i/j);}**  
**public synchronized(this) void set(int i, int j){ this.i =l; this.j=j; }**
- D. **public double divide(){synchronized {return (i/j);}}**  
**public void set(int i, int j){ synchronized {this.i =l; this.j=j; }}**
- E. **public double divide(){synchronized(this) {return (i/j);}}**  
**public void set(int i, int j){ synchronized(this) {this.i =l; this.j=j; }}**

**Given**

```
1. import java.util.concurrent.atomic.*;
2.
3. public class ATest2{
4.     int val = 10;
5.     int x;
6.     ATest2(int i){
7.         val = i;
8.     }
9.     private AtomicInteger value = new AtomicInteger(val);
10.
11.    public static void main(String []args){
12.        ATest2 at = new ATest2(5);
13.        System.out.print(at.value.decrementAndGet());
14.    }
15. }
```

**Which is true about the above code?**

Please select :

- A. Compilation fails.
- B. An exception will be thrown at runtime
- C. 5 will be printed as the output.
- D. 9 will be printed as the output
- E. 4 will be printed as the output

**Which of the followings is true? (Choose 2)**

Please select :

- A. There is no difference between Callable's "call()" method and Runnable's "run()" method.
- B. Callable's "call()" method allows to return some value while Runnable's "run()" doesn't.
- C. Callable is a class while Runnable is an interface.
- D. Both the Callable and Runnable interfaces have only one method.
- E. Both Callable's "call()" method and Runnable's "run()" methods can't be overridden to throw checked exception when necessary.

**Consider following statements.**

- I. It is more efficient to call fork twice for two subprograms and then call join twice.
- II. The order of calling the "compute()" and "join()" is not important.
- III. In some cases fork-join computation might run slower.

**Which is true?**

Please select :

- A. **Only I.**
- B. **Only II.**
- C. **Only III.**
- D. **Only I and II.**
- E. **Only I and III.**

**Consider following statement.**

```
Stream<Integer> stream = Stream.of(2,33).parallel();
```

**Which of the following can be used to convert above stream to a sequential stream?**

Please select :

- A. **stream.nonParallel()**
- B. **stream.sequential()**
- C. **stream.parallel();**
- D. **It is already non parallel.**
- E. **None of above.**

## Given

```
1. import java.util.stream.IntStream;
2. import java.util.stream.Stream;
3.
4. public class Whizlab {
5.     public static void main(String [] args){
6.         Stream<String> stream = Stream.of("1","2","3","4").parallel();
7.         IntStream ins = stream.mapToInt(s -> Integer.parseInt(s));
8.
9.         System.out.println(ins.isParallel());
10.    }
11. }
```

## What is the output?

Please select :

- A. **true**
- B. **false**
- C. An Exception.
- D. Compilation fails.

**Given**

```
1. import java.util.stream.Stream;
2.
3. public class Whizlab {
4.     public static void main(String [] args){
5.         Stream<String> sts1 = Stream.of("A","B");
6.         Stream<String> sts2 = Stream.of("1","2");
7.         Stream out = Stream.concat(sts1, sts2).parallel().sorted();
8.         out.forEach(System.out::print);
9.     }
10. }
```

**What is the output?**

Please select :

- A. Always AB12
- B. Always 12AB
- C. Could be BA21
- D. An Exception.
- E. Compilation fails.

**Given**

```
1. import java.nio.file.*;
2. import java.io.*;
3. class NIO{
4.     public static void main(String [] args) throws IOException{
5.         Path path = Paths.get("F:\\Whizlabs\\java\\nio");
6.         try {
7.             Files.delete(path);
8.         } catch (NoSuchFileException E) {
9.             System.err.format("No such a file or a directory" );
10.        } catch (IOException E){
11.            System.err.println("You may not have enough permission");
12.        }
13.    }
14. }
```

Note that "F:\\Whizlabs\\java\\nio" actually exists and within "nio" directory, there is one additional subdirectory that is currently empty.

Which is the output?

Please select :

- A. "No such a file or a directory" may be printed as the output.
- B. The code will run without throwing any uncaught exception but "nio" directory will not delete.
- C. The "nio" directory may be deleted.
- D. An uncaught exception will be thrown at the runtime.
- E. Compilation fails.