
Question: 1

Given:

```
class Book {
int id;
String name;
public Book (int id, String name) {
this.id = id;
this.name = name;
}
public boolean equals (Object obj) { //line n1
boolean output = false;
Book b = (Book) obj;
if (this.name.equals(b.name))
output = true;
}
return output;
}
}
```

and the code fragment:

```
Book b1 = new Book (101, "Java Programming");
Book b2 = new Book (102, "Java Programming");
System.out.println (b1.equals(b2)); //line n2
```

Which statement is true?

- A. The program prints true.
- B. The program prints false.
- C. A compilation error occurs. To ensure successful compilation, replace line n1 with:
boolean equals (Book obj) {
- D. A compilation error occurs. To ensure successful compilation, replace line n2 with:
System.out.println (b1.equals((Object) b2));

Answer: C

Question: 2

Given the code fragment:

```
Path file = Paths.get ("courses.txt");
// line n1
```

Assume the courses.txt is accessible.

Which code fragment can be inserted at line n1 to enable the code to print the content of the courses.txt file?

- A. List<String> fc = Files.list(file);
fc.stream().forEach(s -> System.out.println(s));
- B. Stream<String> fc = Files.readAllLines (file);
fc.forEach (s -> System.out.println(s));

C. `List<String> fc = readAllLines(file);
fc.stream().forEach (s -> System.out.println(s));`
D. `Stream<String> fc = Files.lines (file);
fc.forEach (s -> System.out.println(s));`

Answer: B

Question: 3

Which statement is true about `java.time.Duration`?

- A. It tracks time zones.
- B. It preserves daylight savingtime.
- C. It defines time-based values.
- D. It defines date-based values.

Answer: C

Explanation:

Reference:

<http://tutorials.jenkov.com/java-date-time/duration.html#accessing-the-time-of-aduration>

Question: 4

Given the code fragment:

```
List<Integer> nums = Arrays.asList (10, 20, 8);  
System.out.println (  
//line n1  
);
```

Which code fragment must be inserted at line n1 to enable the code to print the maximum number in the `nums` list?

- A. `nums.stream().max(Comparator.comparing(a -> a)).get()`
- B. `nums.stream().max(Integer :: max).get()`
- C. `nums.stream().max()`
- D. `nums.stream().map(a -> a).max()`

Answer: C

Question: 5

Given:

```
public class product {  
int id; int price;  
public Product (int id, int price) {  
this.id = id;
```

```
this.price = price;
}
public String toString() { return id + ":" + price; }
}
```

and the code fragment:

```
List<Product> products = Arrays.asList(new Product(1, 10),
new Product (2, 30),
new Product (2, 30));
Product p = products.stream().reduce(new Product (4, 0), (p1, p2) -> {
p1.price+=p2.price;
return new Product (p1.id, p1.price);});
products.add(p);
products.stream().parallel()
.reduce((p1, p2) -> p1.price > p2.price ? p1 : p2)
.ifPresent(System.out: :println);
```

What is the result?

- A. 2 : 30
- B. 4: 0
- C. 4 : 60
- D. 4 : 60
- 2 : 30
- 3 : 20
- 1 : 10
- E. The program prints nothing.

Answer: D

Question: 6

Given the code fragment:

```
Path p1 = Paths.get("/Pics/MyPic.jpeg");
System.out.println (p1.getNameCount() +
":" + p1.getName(1) +
":" + p1.getFileName());
```

Assume that the Pics directory does NOT exist.

What is the result?

- A. An exception is thrown at run time.
- B. 2:MyPic.jpeg: MyPic.jpeg
- C. 1:Pics:/Pics/ MyPic.jpeg
- D. 2:Pics: MyPic.jpeg

Answer: C

Question: 7

Given:

```
class Worker extends Thread {
    CyclicBarrier cb;
    public Worker(CyclicBarrier cb) { this.cb = cb; }
    public void run () {
        try {
            cb.await();
            System.out.println("Worker...");
        } catch (Exception ex) { }
    }
}

class Master implements Runnable { //line n1
    public void run () {
        System.out.println("Master...");
    }
}
```

and the code fragment:

```
Master master = new Master();
//line n2
Worker worker = new Worker(cb);
worker.start();
```

You have been asked to ensure that the run methods of both the Worker and Master classes are executed.

Which modification meets the requirement?

- A. Atline n2, insertCyclicBarrier cb = new CyclicBarrier(2, master);
- B. Replaceline n1withclass Master extends Thread {
- C. Atline n2, insertCyclicBarrier cb = new CyclicBarrier(1, master);
- D. Atline n2, insertCyclicBarrier cb = new CyclicBarrier(master);

Answer: B

Question: 8

Given that course.txt is accessible and contains:

Course : : Java

and given the code fragment:

```
public static void main (String[ ] args) {
    int i;
    char c;
    try (FileInputStream fis = new FileInputStream ("course.txt");
        InputStreamReader isr = new InputStreamReader(fis);) {
        while (isr.ready()) { //line n1
            isr.skip(2);
            i = isr.read ();
            c = (char) i;
```

```
System.out.print(c);
}
} catch (Exception e) {
e.printStackTrace();
}
}
```

What is the result?

- A. ur ::va
- B. ueJa
- C. The program prints nothing.
- D. A compilation error occurs atline n1.

Answer: A

Question: 9

Given:

```
public class Counter {
public static void main (String[ ] args) {
int a = 10;
int b = -1;
assert (b >=1) : "Invalid Denominator";
int = a / b;
System.out.println (c);
}
}
```

What is the result of running the code with the `-ea` option?

- A. -10
- B. 0
- C. AnAssertionErroris thrown.
- D. A compilation error occurs.

Answer: B

Question: 10

Given the code fragments:

```
interface CourseFilter extends Predicate<String> {
public default boolean test (String str) {
return str.equals ("Java");
}
}
```

and

```
List<String> str = Arrays.asList("Java", "Java EE", "Java ME");
```

```
Predicate<String> cf1 = s -> s.length() > 3;
Predicate cf2 = new CourseFilter() { //line n1
public boolean test (String s) {
return s.contains ("Java");
}
};
long c = strs.stream()
.filter(cf1)
.filter(cf2//line n2
.count());
System.out.println(c);
What is the result?
```

- A. 2
- B. 3
- C. A compilation error occurs atline n1.
- D. A compilation error occurs atline n2.

Answer: A
