# 1z0-816

Number: 1z0-816
Passing Score: 800
Time Limit: 120 min
File Version: 1

1z0-816



#### Exam A

#### **QUESTION 1**

Given the declaration:

```
@interface Resource {
    String name();
    int priority() default 0;
}
Examine this code fragment:
```

```
/* Loc1 */ class ProcessOrders { ... }
```

Which two annotations may be applied at Loc1 in the code fragment? (Choose two.)



```
A. @Resource(priority=100)
```

B. @Resource(priority=0)

C. @Resource(name="Customer1", priority=100)

D. @Resource(name="Customer1")

E. @Resource

Correct Answer: AB Section: (none) Explanation

**Explanation/Reference:** 

# **QUESTION 2**

```
public interface TestInterface {
    default void samplingProbeProcedure() {
        probeProcedure();
        System.out.println("Collect Sample");
        System.out.println("Leave Asteroid");
        System.out.println("Dock with Main Craft");
    }
    default void explosionProbeProcedure() {
        probeProcedure();
        System.out.println("Explode")
    }
}
```

Examine these requirements:

- Eliminate code duplication.
- Keep constant the number of methods other classes may implement from this interface.

Which method can be added to meet these requirements?

```
A. private default void probeProcedure(){
        System.out.println("Launch Probe");
        System.out.println("Land on Asteroid");
    }
B. static void probeProcedure(){
        System.out.println("Launch Probe");
        System.out.println("Land on Asteroid");
    }
C. private void probeProcedure() {
        System.out.println("Launch Probe");
        System.out.println("Launch Probe");
        System.out.println("Launch Probe");
        System.out.println("Launch Probe");
    }
}
```

```
D. default void probeProcedure() {
     System.out.println("Launch Probe");
     System.out.println("Land on Asteroid");
  }
Correct Answer: B
Section: (none)
Explanation
Explanation/Reference:
QUESTION 3
Given:
public class Main {
   public static void main(String[] args) {
      Thread t1 = new Thread(new MyThread());
      Thread t2 = new Thread(new MyThread());
      Thread t3 = new Thread(new MyThread());
      t1.start();
      t2.run();
      t3.start();
      t1.start();
class MyThread implements Runnable {
   public void run() {
       System.out.println("Running.");
```

Which one is correct?

- A. An IllegalThreadStateException is thrown at run time.
- B. Three threads are created.
- C. The compilation fails.
- D. Four threads are created.

Correct Answer: A Section: (none) Explanation

# **Explanation/Reference:**

Explanation:

Running.
Running.
Running.
Exception in thread "main" java.lang.IllegalThreadStateException
at java.base/java.lang.Thread.start(Thread.java:794)
at Main.main(Main.java:12)

#### **QUESTION 4**

```
public class Main {
   public static void main(String[] args) {
      Optional<String> value = createValue();
      String str = value.orElse ("Duke");
      System.out.println(str);
   }
   static Optional<String> createValue() {
      String s = null;
      return Optional.ofNullable(s);
   }
}
```

# What is the output?

- A. null
- B. A NoSuchElementException is thrown at run time.
- C. Duke
- D. A NullPointerException is thrown at run time.

Correct Answer: C Section: (none) Explanation

# **Explanation/Reference:**

Explanation:

```
14
   15 +
          public class Main {
            public static void main(String□ args) {
   16 -
              Optional < String > value = createValue();
   17
              String str = value.orElse ("Duke");
   18
              System.out.println(str);
   19
   20
   21 -
            static Optional<String> createValue() {
   22
              String s = null;
              return Optional.ofNullable(s);
   23
   24
   25
          }
   26
CPU Time: 0.15 sec(s), Memory: 32572 kilobyte(s)
  Duke
```

#### **QUESTION 5**

Assume  ${\tt ds}$  is a  ${\tt DataSource}$  and the EMP table is defined appropriately.

```
try (Connection conn = ds.getConnection();
    PreparedStatement ps = conn.prepareStatement("INSERT INTO EMP VALUES(?, ?, ?)")) {
    ps.setObject(1, 101, JDBCType.INTEGER);
    ps.setObject(2, "SMITH", JDBCType.VARCHAR);
    ps.setObject(3, "HR", JDBCType.VARCHAR);
    ps.executeUpdate();
    ps.setInt(1, 102);
    ps.setString(2, "JONES");
    ps.executeUpdate();
}
```

What does executing this code fragment do?

```
A. inserts two rows (101, 'SMITH', 'HR') and (102, 'JONES', NULL)
```

- B. inserts two rows (101, 'SMITH', 'HR') and (102, 'JONES', 'HR')
- C. inserts one row (101, 'SMITH', 'HR')
- D. throws a SQLException

Correct Answer: C Section: (none) Explanation

# **Explanation/Reference:**

#### **QUESTION 6**

Assuming the Widget class has a getPrice method, this code does not compile:

Which two statements, independently, would allow this code to compile? (Choose two.)

- A. Replace line 5 with widgetStream.filter(a -> ((Widget)a).getPrice() > 20.00).
- B. Replace line 1 with List<Widget> widgetStream = widgets.stream();.

- C. Replace line 5 with widgetStream.filter((Widget a) -> a.getPrice() > 20.00).
- D. Replace line 4 with Stream<Widget> widgetStream = widgets.stream();.

Correct Answer: AD Section: (none) Explanation

**Explanation/Reference:** 

#### **QUESTION 7**

Given:

```
public class Foo {
   private final ReentrantLock lock = new ReentrantLock();
   private State state;
   public void foo() throws Exception {
       try {
          lock.lock();
          state.mutate();
       }
       finally {
          lock.unlock();
       }
   }
}
```

What is required to make the Foo class thread safe?

- A. No change is required.
- B. Make the declaration of lock static.
- C. Replace the lock constructor call with new ReentrantLock (true).
- D. Move the declaration of lock inside the foo method.

Correct Answer: C Section: (none) Explanation

# **Explanation/Reference:**

Reference: https://stackoverflow.com/questions/55134811/how-to-make-java-class-thread-safe

#### **QUESTION 8**

Given:

```
var data = new ArrayList<>();
data.add("Peter");
data.add(30);
data.add("Market Road");
data.set(1, 25);
data.remove(2);
data.set(3, 1000L);
System.out.print(data);
```

#### What is the output?

- A. [Market Road, 1000]
- B. [Peter, 30, Market Road]
- C. [Peter, 25, null, 1000]
- D. An exception is thrown at run time.

Correct Answer: D Section: (none) Explanation

# **Explanation/Reference:**

Explanation:

```
Console 1

Exception in thread "main" java.lang.IndexOutOfBoundsException: Index 3 out of bounds for length 2
at java.base/jdk.internal.util.Preconditions.outOfBounds(Preconditions.java:64)
at java.base/jdk.internal.util.Preconditions.outOfBoundsCheckIndex(Preconditions.java:70)
at java.base/jdk.internal.util.Preconditions.checkIndex(Preconditions.java:248)
at java.base/java.util.Objects.checkIndex(Objects.java:372)
at java.base/java.util.ArrayList.set(ArrayList.java:472)
at abc.main(abc.java:13)

Completed with exit code: 1
```

#### **QUESTION 9**

Which two are successful examples of autoboxing? (Choose two.)

```
A. String a = "A";
B. Integer e = 5;
C. Float g = Float.valueOf(null);
D. Double d = 4i
E. Long c = 23Li
F. Float f = 6.0;
Correct Answer: AB
Section: (none)
Explanation
Explanation/Reference:
QUESTION 10
Given:
public class Hello {
    class Greeting {
        void sayHi() {
            System.out.println("Hello world");
    public static void main(String... args) {
        // Line 1
What code must you insert on Line 1 to enable the code to print Hello world?
A. Hello.Greeting myG = new Hello.Greeting()
  myG.sayHi();
B. Hello myH = new Hello();
  Hello.Greeting myG = myH.new Greeting();
   myG.sayHi();
C. Hello myH = new Hello();
```

```
Hello.Greeting myG = myH.new Hello.Greeting();
myG.sayHi();

D. Hello myH = new Hello();
Greeting myG = new Greeting();
myG.sayHi ();
```

Correct Answer: B Section: (none) Explanation

# Explanation/Reference:

Explanation:

```
2 import java.io.*;
    3 import java.util.*;
    4 public class Hello {
    5 class Greeting {
          void sayHi() {
               System.out.println("Hello world");
    8
   10 public static void main(String... args) {
          Hello myH = new Hello();
   11
   12 Hello.Greeting myG = myH.new Greeting();
   13 myG.sayHi();
   14 }
   15 }
   16
Console 3
                 Console 4
Hello world
Completed with exit code: 0
```

# **QUESTION 11**

```
enum Color implements Serializable {
   R(1), G(2), B(3);
   int c;
   public Color(int c) {
      this.c = c;
   }
}
```

What action ensures successful compilation?

- A. Replace public Color(int c) with private Color(int c).
- B. Replace int c; with private int c;.
- C. Replace int c; with private final int c;.
- D. Replace enum Color implements Serializable with public enum Color.
- E. Replace enum Color with public enum Color.

# Correct Answer: A Section: (none) Explanation

# **Explanation/Reference:**

Explanation:

```
import java.io.*;
import java.util.*;
class Hello {

enum Color implements Serializable {
    R(1), G(2), B(3);
    int c;
    private Color (int c) {
    this.c = c;
}
}
```

#### **QUESTION 12**

```
var numbers = List.of(0,1,2,3,4,5,6,7,8,9);
```

You want to calculate the average of numbers.

Which two codes will accomplish this? (Choose two.)

```
A. double avg = numbers.stream().parallel().averagingDouble(a -> a);
B. double avg = numbers.parallelStream().mapToInt (m -> m).average().getAsDouble();
C. double avg = numbers.stream().mapToInt (i -> i).average().parallel();
D. double avg = numbers.stream().average().getAsDouble();
E. double avg = numbers.stream().collect(Collectors.averagingDouble(n -> n));
```

Correct Answer: BD Section: (none) Explanation

# **Explanation/Reference:**

Explanation:

```
import java.io.*;
import java.util.*;
class Hello {
  public static void main(String[] args) {

    var numbers = List.of(0,1,2,3,4,5,6,7,8,9);
    double avg = numbers.parallelStream().mapToInt (m -> m).average().getAsDouble();
}

10
  }
11
}
```

#### **QUESTION 13**

```
// line 1
List<String> fruits = new ArrayList<>(List.of("apple", "orange", "banana"));
fruits.replaceAll(function);
```



Which statement on line 1 enables this code fragment to compile?

- A. Function function = String::toUpperCase;
- B. UnaryOperator function = s -> s.toUpperCase();
- C. UnaryOperator<String> function = String::toUpperCase;
- D. Function<String> function = m -> m.toUpperCase();

Correct Answer: C Section: (none) Explanation

# **Explanation/Reference:**

Explanation:

```
2 import java.io.*;
3 import java.util.*;
 4 import java.util.stream.Stream;
 5 import java.util.function.Function;
 6 import java.util.function.UnaryOperator;
 8 class Hello (
 9 public static void main(String[] args) {
10
11
     UnaryOperator<String> function = String::toUpperCase;
    List<String>fruits = new ArrayList<>(List.of("apple", "orange", "banana"));
12
13
    fruits.replaceAll(function);
14
15
16 }
```

#### **QUESTION 14**

```
public class Main {
  public static void main(String[] args) {
    try (BufferedReader br = new BufferedReader(new InputStreamReader(System.in));) {
      String input = br.readLine();
      System.out.println ("Input String was: " + input);
    } catch (IOException e) {
      e.printStackTrace();
    }
}
```

#### Which is true?

- A. System.out is the standard output stream. The stream is open only when System.out is called.
- B. System.in cannot reassign the other stream.
- C. System.out is an instance of java.io.OutputStream by default.
- D. System. in is the standard input stream. The stream is already open.

Correct Answer: D Section: (none) Explanation

# **Explanation/Reference:**

Reference: <a href="https://www.geeksforgeeks.org/java-lang-system-class-java/">https://www.geeksforgeeks.org/java-lang-system-class-java/</a>

#### **QUESTION 15**

```
import java.util.List;
import java.util.function.BinaryOperator;
public class Main {
   public static void main(String... args) {
      List<Employee> list = List.of(new Employee("John", 80000.0), new Employee("Scott",
90000.0));
      double starts = 0.0:
      double ratio = 1.0:
      BinaryOperator<Double> bo = (a, b) \rightarrow a + b;
double totalSalary = list.stream().map(e -> e.getSalary() * ratio).reduce(starts, bo);
// line 1
      System.out.println("Total salary = " + totalSalary);
}
class Employee {
   String name;
   double salary;
   public Employee (String name, double salary) {
      this.name = name;
      this.salary = salary;
   public String getName() { return name; }
   public double getSalary{} { return salary; }
Which statement is equivalent to line 1?
A. double totalSalary = list.stream().map(e -> e.getSalary() * ratio).reduce(bo).ifPresent (p -> p.doubleValue());
B. double totalSalary = list.stream().mapToDouble(e -> e.getSalary() * ratio).sum;
C. double totalSalary = list.stream().map(Employee::qetSalary * ratio).reduce(bo).orElse(0.0);
D. double totalSalary = list.stream().mapToDouble(e -> e.getSalary() * ratio).reduce(starts, bo);
Correct Answer: C
Section: (none)
Explanation
```

**Explanation/Reference:** 

Explanation:

#### **QUESTION 16**

```
@Target(ElementType.METHOD)
@Retention(RetentionPolicy.RUNTIME)
public @interface AuthorInfo {
    String author() default "";
    String date();
    String[] comments() default {};
}
Which two are correct? (Choose two.)

A. @AuthorInfo(date="1-1-2020", comments={ null })
    public class Hello {
        public void func() {}
    }
B. public class Hello {
    @AuthorInfo (date="1-1-2020. comments="Hello")
        public void func() {}
}
```

```
C. public class Hello {
         @AuthorInfo
         public void func() {}
}
D. @AuthorInfo(date="1-1-2020")
public class Hello {
         public void func() {}
}
E. public class Hello {
         @AuthorInfo(date="1-1-2020", author="Gandhi", comments={ "world" })
         public void func () {}
}
```

Correct Answer: CD Section: (none) Explanation

**Explanation/Reference:** 

#### **QUESTION 17**

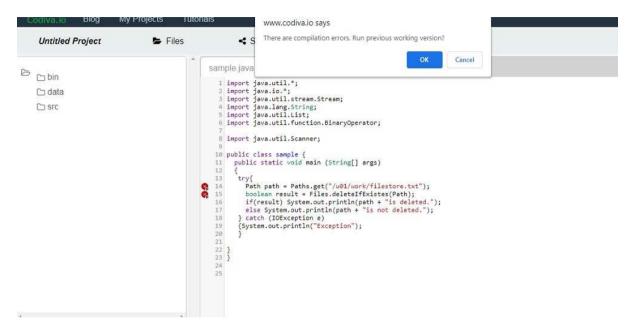
```
public class Main {
   public static void main(String[] args) {
       try {
          Path path = Paths.get("/u01/work/filestore.txt");
          boolean result = Files.deleteIfExists(path);
          if(result) System.out.println(path + "is deleted.");
          else System.out.println(path + "is not deleted.");
       } catch(IOException e) {
          System.out.println("Exception");
Assume the file on path does not exist.
What is the result?
```

- A. The compilation fails.
- B. /u01/work/filestore.txt is not deleted.
- C. Exception
- D. /u01/work/filestore.txt is deleted.

Correct Answer: A Section: (none) **Explanation** 

# **Explanation/Reference:**

Explanation:



# **QUESTION 18**

```
public class Tester {
    static class Person implements /* line 1 */ {
       private String name;
       Person(String name) { this.name = name; }
       /* line 2 */
    public static void main(String[] args) {
       Person[] people = {new Person("Joe"),
                              new Person ("Jane"),
                              new Person("John")};
       Arrays-sort (people);
       for (Person person: people) {
           System.out.println(person.name);
You want the code to produce this output:
John
Joe
Jane
Which code fragment should be inserted on line 1 and line 2 to produce the output?
A. Insert Comparator<Person> on line 1.
  public int compare(Person p1, Person p2) {
     return p1.name.compare(p2.name);
  on line 2.
B. Insert Comparator<Person> on line 1.
  Insert
  public int compareTo(Person person) {
     return person.name.compareTo(this.name);
  on line 2.
```

```
C. Insert Comparable < Person > on line 1.
    Insert
    public int compare(Person p1, Person p2) {
        return p1.name.compare(p2.name);
    }
      on line 2.
D. Insert Comparator < Person > on line 1.
    Insert
    public int compare(Person person) {
        return person.name.compare(this.name);
    }
      on line 2.

Correct Answer: B
Section: (none)
Explanation
```

# **Explanation/Reference:**

Reference: https://www.coursehero.com/file/p320ss6/Override-public-int-compareTo-Person-other-Compare-this-objects-name-to-others/

#### **QUESTION 19**

Given:

and

```
class CustomType<T> {
   public <T> int count(T[] anArray, T element) {
     int count = 0;
     for(T e : anArray) {
        if (e.equals(element)) ++count;
     }
     return count;
}
```

```
public class Test extends CustomType {
    public static void main(String[] args) {
       String[] words = ("banana", "orange", "apple", "lemon");
       Integer[] numbers = \{1, 2, 3, 4, 5\};
       CustomType type = new CustomType();
       CustomType<String> stringType = new CustomType<>();
       System.out.println(stringType.count(words, "apple"));
       System.out.println(type.count(words, "apple"));
       System.out.printin(type.count (numbers, 3));
What is the result?
A. A NullPointerException is thrown at run time.
B. The compilation fails.
C 1
  Null
  null
D. 1
  1
E. A ClassCastException is thrown at run time.
Correct Answer: B
Section: (none)
Explanation
Explanation/Reference:
Explanation:
Console 4
Error: Could not find or load main class CustomType
Caused by: java.lang.ClassNotFoundException: CustomType
```

#### **QUESTION 20**

```
public class X {
}
and
public final class Y extends X {
}
```

What is the result of compiling these two classes?

- A. The compilation fails because there is no zero args constructor defined in class x.
- B. The compilation fails because either class X or class Y needs to implement the toString() method.
- C. The compilation fails because a final class cannot extend another class.
- D. The compilation succeeds.

Correct Answer: B Section: (none) Explanation

#### **Explanation/Reference:**

Explanation:

#### **QUESTION 21**

Which code is correct?

```
A. Runnable r = "Message" -> System.out.println();
B. Runnable r = () -> System.out::print;
C. Runnable r = () -> {System.out.println("Message");};
```

```
D. Runnable r = -> System.out.println("Message");
E. Runnable r = {System.out.println("Message")};
```

Correct Answer: C Section: (none) Explanation

#### **Explanation/Reference:**

Reference: <a href="https://www.oracle.com/technical-resources/articles/java/architect-lambdas-part1.html">https://www.oracle.com/technical-resources/articles/java/architect-lambdas-part1.html</a>

#### **QUESTION 22**

A company has an existing sales application using a Java 8 jar file containing packages:

```
com.company.customer;
com.company.customer.orders;
com.company.customer.info;
com.company.sales;
com.company.sales.leads;
com.company.sales.closed;
com.company.orders;
com.company.orders.pending;
com.company.orders.shipped.
```

To modularize this jar file into three modules, customer, sales, and orders, which module-info.java would be correct?

```
A. module com.company.customer {
      opens com.company.customer;
}
module com.company.sales{
      opens com.company.sales;
}
module com.company.orders {
      opens com.company.orders;
}
```

```
B. module com.company.customer {
     exports com.company.customer;
  module com.company.sales{
     exports com.company.sales;
  module com.company.orders{
     exports com.company.orders;
C. module com.company.customer {
     requires com.company.customer;
  module com.company.sales{
     requires com.company.sales;
  module com.company.orders {
     requires com.company.orders;
D. module com.company.customer {
     provides com.company.customer;
  module com.company.sales{
     provides com.company.sales;
  module com.company.orders {
     provides com.company.orders;
Correct Answer: C
Section: (none)
Explanation
```

**Explanation/Reference:** 

Reference: <a href="https://developer.ibm.com/tutorials/java-modularity-3/">https://developer.ibm.com/tutorials/java-modularity-3/</a>

#### **QUESTION 23**

Which is a proper JDBC URL?

A. jdbe.mysql.com://localhost:3306/database B. http://localhost.mysql.com:3306/database C. http://localhost mysql.jdbc:3306/database D. jdbc:mysql://localhost:3306/database

Correct Answer: D Section: (none) Explanation

**Explanation/Reference:**Reference: <a href="https://vladmihalcea.com/jdbc-driver-connection-url-strings/">https://vladmihalcea.com/jdbc-driver-connection-url-strings/</a>

#### **QUESTION 24**

```
public class SerializedMessage implements Serializable {
   String message;
   LocalDateTime createdTime;
   transient LocalDateTime updatedDateTime;;
   SerializedMessage(String message) {
      this.message = message;
      this.createdTime = LocalDateTime.now();
   }
   private void readObject (ObjectInputStream in) {
      try {
       in.defaultReadObject();
       this.updatedDateTime = LocalDateTime.now();
    } catch (IOException | ClassNotFoundException e) {
      e.printStackTrace();
    }
}
```

When is the readObject method called?

- A. before this object is deserialized
- B. after this object is deserialized
- C. before this object Is serialized
- D. The method is never called.
- E. after this object is serialized

Correct Answer: B Section: (none) Explanation

# **Explanation/Reference:**

Reference: https://www.oracle.com/technical-resources/articles/java/javaserial.html

#### **QUESTION 25**

```
List<String> list1 = new ArrayList<>();
list1.add("A");
list1.add("B");
List list2 = List.copyOf(list1);
list2.add("C");
List<List<String>> list3 = List.of(list1, list2);
System.out.println(list3);
```

# What is the result?

- A. [[A, B],[A, B]]
- B. An exception is thrown at run time.
- C. [[A, B], [A, B, C]]
- D. [[A, B, C], [A, B, C]]

Correct Answer: B Section: (none) Explanation

# Explanation/Reference:

Explanation:

```
12 + public class Main {
  13 + public static void main(String[] args) {
  14
  15
          List<String> list1 = new ArrayList<>();
  16
          list1.add("A");
  17
          list1.add("B");
          List list2 = List.copyOf(list1);
  18
  19
          list2.add("C");
  20
          List<List<String>> list3 = List.of(list1, list2);
  21
          System.out.println(list3);
  22
  23
  24
       }
  25
                                                                            Stdin Inputs
    JDK 11.0.4 •
                                                           Interactive
 CommandLine Arguments
                                                             Execute
Result
CPU Time: 0.16 sec(s), Memory: 32128 kilobyte(s)
  Exception in thread "main" java.lang.UnsupportedOperationException
      at java.base/java.util.ImmutableCollections.uoe(ImmutableCollections.java:71)
      at java.base/java.util.ImmutableCollections$AbstractImmutableCollection.add(ImmutableCollections.java:75)
      at Main.main(Main.java:19)
```

# **QUESTION 26**

```
public class Secret {
1.
2.
             String[] names;
             public Secret(String[] names) {
3.
                   this.names = names;
4.
5.
6.
             public String[] getNames() {
7.
                   return names;
8.
9.
      }
Which three actions implement Java SE security guidelines? (Choose three.)
A. Change line 7 to return names.clone();.
B. Change line 4 to this.names = names.clone();.
C. Change the getNames() method name to get$Names().
D. Change line 6 to public synchronized String[] getNames() {.
E. Change line 2 to private final String[] names;.
F. Change line 3 to private Secret(String[] names) {.
G. Change line 2 to protected volatile String[] names;.
```

Correct Answer: EFG Section: (none) Explanation

# **Explanation/Reference:**

#### **QUESTION 27**

```
Integer[] intArray = {2, 1, 3, 4, 5};
List<Integer> list =
new ArrayList<>(Arrays.asList (intArray));
list.parallelStream()
    .forEach(e -> System.out.print(e + " "));
```

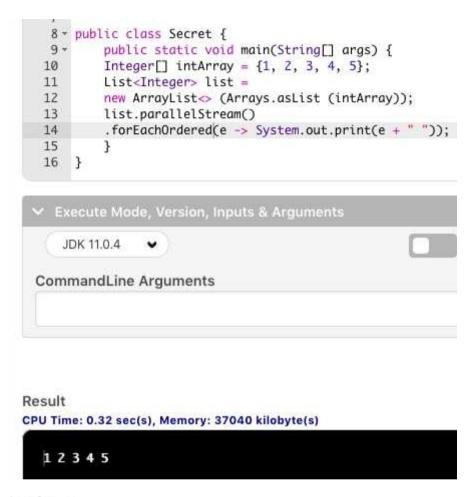
Which two are correct? (Choose two.)

- A. The output will be exactly 2 1 3 4 5.
- B. The program prints  $1\ 4\ 2\ 3$ , but the order is unpredictable.
- C. Replacing for Each() with for EachOrdered(), the program prints 2 1 3 4 5, but the order is unpredictable.
- D. Replacing for Each() with for EachOrdered(), the program prints 1 2 3 4 5.
- E. Replacing forEach() with forEachOrdered(), the program prints 2 1 3 4 5.

Correct Answer: BD Section: (none) Explanation

# **Explanation/Reference:**

Explanation:



**QUESTION 28** 

Which two independent changes will make the Main class compile? (Choose two.)

- A. Move the entire Student class declaration to a separate Java file, Student.java.
- B. Change line 2 to public Student(String classname).
- C. Change line 1 to public class Student {.
- D. Change line 3 to Student student = new Student("Biology");.
- E. Change line 1 to static class Student  $\{.$

Correct Answer: BD Section: (none) Explanation

# **Explanation/Reference:**

Explanation:

```
1 import java.util.*;
2 import java.io.*;
3 import java.lang.Thread;
4 import java.util.ArrayList;
5 import java.util.LinkedList;
6 import java.util.List;
7 import java.util.function.Consumer;
8 import java.util.stream.Stream;
9 import java.util.stream.IntStream;
10 import java.util.Optional;
11
12
13 - public class Main {
        class Student {
14 -
            String classname;
15
            public Student (String classname) {
16 -
17
               this.classname = classname;
18
19
20
21 -
                public static void main (String[] args) {
22
                   var student = new Student ("Biology");
23
24 }
```

#### **QUESTION 29**

Given the code fragment:

```
var pool = Executors.newFixedThreadPool(5);
Future outcome = pool.submit(() -> 1);
```

Which type of lambda expression is passed into  ${\tt submit}()$ ?

- A. java.lang.Runnable
- B. java.util.function.Predicate
- C. java.util.function.Function
- D. java.util.concurrent.Callable

Correct Answer: D Section: (none) Explanation

#### **Explanation/Reference:**

Reference: <a href="https://www.codota.com/code/java/methods/java.util.concurrent.Executors/newFixedThreadPool">https://www.codota.com/code/java/methods/java.util.concurrent.Executors/newFixedThreadPool</a>

#### **QUESTION 30**

Which two statements set the default locale used for formatting numbers, currency, and percentages? (Choose two.)

```
A. Locale.setDefault(Locale.Category.FORMAT, "zh-CN");
B. Locale.setDefault(Locale.Category.FORMAT, Locale.CANADA_FRENCH);
C. Locale.setDefault(Locale.SIMPLIFIED_CHINESE);
D. Locale.setDefault("en_CA");
E. Locale.setDefault("es", Locale.US);
```

Correct Answer: BD Section: (none) Explanation

# **Explanation/Reference:**

Reference: <a href="https://www.oracle.com/technical-resources/articles/javase/locale.html">https://www.oracle.com/technical-resources/articles/javase/locale.html</a>

#### **QUESTION 31**

Given:

```
public class Confidential implements Serializable{
    private String data;

public Confidential(String data) {
        this.data = data;
    }
}
```

Which two are secure serialization of these objects? (Choose two.)

- A. Define the  ${\tt serialPersistentFields}$  array field.
- B. Declare fields transient.

- C. Implement only readResolve to replace the instance with a serial proxy and not writeReplace.
- D. Make the class abstract.
- E. Implement only writeReplace to replace the instance with a serial proxy and not readResolve.

Correct Answer: AC Section: (none) Explanation

#### **Explanation/Reference:**

#### **QUESTION 32**

A bookstore's sales are represented by a list of Sale objects populated with the name of the customer and the books they purchased.

```
public class Sale {
private String customer;
private List<Book> items;
// constructor, setters and getters not shown
public class Book {
private String name;
private double price;
// constructor, setters and getters not shown
Given a list of Sale objects, tList, which code fragment creates a list of total sales for each customer in ascending order?
A List<String> totalByUser = tList.stream()
         .collect(flatMapping(t -> t.getItems().stream(),
                   groupingBy(Sale::getCustomer,
                   summingDouble(Book::getPrice))))
         .entrySet().stream()
         .sorted(Comparator.comparing(Entry::getValue))
         .collect(mapping(e -> e.getKey() + ":" + e.getValue(),toList()));
```

```
B. List<String> totalByUser = tList.stream()
      .collect(groupingBy(Sale::getCustomer,
               flatMapping(t -> t.getItems().stream(),
               summingDouble(Book::getPrice))))
      .sorted(Comparator. comparing (Entry::getValue))
      .collect(mapping(e -> e.getKey() + ":" + e.getValue(),toList()));
C. List<String> totalByUser = tList.stream()
      .collect(groupingBy(Sale::getCustomer,
               flatMapping(t -> t.getItems().stream(),
               summingDouble(Book::getPrice))))
      .entrySet().stream()
      .sorted(Comparator.comparing(Entry::getValue))
      .collect(mapping(e -> e.getKey() + ":" + e.getValue(),toList()));
D. List<String> totalBvUser = tList.stream()
      .collect(flatMapping(t -> t.getItems().stream(),
               groupingBy(Sale::getCustomer,
               summingDouble(Book::getPrice))))
      .sorted(Comparator.comparing (Entry::getValue))
      .collect(mapping(e -> e.getKey() + ":" + e.getValue(),toList()));
Correct Answer: C
Section: (none)
Explanation
Explanation/Reference:
QUESTION 33
Which three annotation uses are valid? (Choose three.)
A. Function < String > func = (@NonNull x) -> x.toUpperCase();
B. var v = "Hello" + (@Interned) "World"
C. Function < String > String > func = (var @NonNull x) -> x.toUpperCase();
D. Function<String, String> func = (@NonNull var x) -> x.toUpperCase();
```

```
E. var myString = (@NonNull String) str;
F. var obj = new @Interned MyObject();
Correct Answer: ACF
Section: (none)
Explanation
Explanation/Reference:
QUESTION 34
Given:
public static void main(String[] args) {
    final List<String> fruits =
       List.of("Orange", "Apple", "Lemmon", "Raspberry");
    final List<String> types =
       List.of("Juice", "Pie", "Ice", "Tart");
    final var stream =
       IntStream.range(0, Math.min(fruits.size(), types.size()))
            .mapToObj((i) -> fruits.get(i) + " " + types.get(i) );
    stream. forEach(System.out::println);
}
What is the result?
A. Orange Juice
B. The compilation fails.
C. Orange Juice
  Apple Pie
  Lemmon Ice
  Raspberry Tart
D. The program prints nothing.
Correct Answer: C
Section: (none)
```

**Explanation** 

# **Explanation/Reference:**

Explanation:

```
12 - public class Person {
           public static void main (String□ args) {
   13 +
               final List<String> fruits =
   14
               List.of("Orange", "Apple", "Lemmon", "raspberry");
   15
               final List<String> types =
   16
               List.of("Juice", "Pie", "Ice", "Tart");
   17
               final var stream =
   18
   19
               IntStream.range(0, Math.min(fruits.size(), types.size()))
               .mapToObj ((i) -> fruits.get(i) + " " + types.get(i) );
   20
               stream. forEach(System.out::println);
   21
   22
   23
  24 }
Result
compiled and executed in 1.227 sec(s)
   Orange Juice
   Apple Pie
   Lemmon Ice
   raspberry Tart
```

#### **QUESTION 35**

Which interface in the java.util.function package can return a primitive type?

- A. ToDoubleFunction
- B. Supplier
- C. BiFunction
- D. LongConsumer

Correct Answer: A Section: (none) Explanation

# **Explanation/Reference:**

Reference: http://java.boot.by/ocpjp8-upgrade-guide/ch02s07.html

```
QUESTION 36
```

```
Given:
enum QUALITY {
     A(100), B(75), C(50);
     int percent;
     private QUALITY(int percent) {
         this.percent = percent;
and
checkQuality(QUALITY.A);
and
void checkQuality(QUALITY q) {
    switch (q) {
       case /* Insert code here */:
           System.out.println("Best");
          break:
       default:
          System.out.println("Not best");
          break;
Which code fragment can be inserted into the switch statement to print Best?
A. QUALITY.A.ValueOf()
B. A
C. A.toString()
```

#### D. OUALITY.A

Correct Answer: B Section: (none) Explanation

### **Explanation/Reference:**

#### **QUESTION 37**

Given:

```
LocalDate d1 = LocalDate.of(1997,2,7);
DateTimeFormatter dtf =
DateTimeFormatter.ofPattern( /*insert code here*/ );
System.out.println(dtf.format (d1));
```

Which pattern formats the date as Friday 7th of February 1997?

```
A. "eeee dd+"th of"+ MMM yyyy"

B. "eeee dd'th of' MMM yyyy"

C. "eeee d+"th of"+ MMMM yyyy"

D. "eeee d'th of' MMMM yyyy"
```

Correct Answer: B Section: (none) Explanation

# **Explanation/Reference:**

Reference: <a href="https://books.google.com.pk/books?id=PmiO65T9hF0C&pg=PA385&lpg=PA385&dq=java+pattern+formats+eeee+d%2Bth+of%2B+MMMM">https://books.google.com.pk/books?id=PmiO65T9hF0C&pg=PA385&lpg=PA385&dq=java+pattern+formats+eeee+d%2Bth+of%2B+MMMM</a> <a href="https://books.google.com.pk/books?id=PmiO65T9hF0C&pg=PA385&lpg=PA385&dq=java+pattern+formats+eeee+d%2Bth+of%2B+MMMM+yyyy&source=bl&ots=IJN-">https://books.google.com.pk/books?id=PmiO65T9hF0C&pg=PA385&lpg=PA385&dq=java+pattern+formats+eeee+d%2Bth+of%2B+MMMM+yyyy&source=bl&ots=IJN-">https://books.google.com.pk/books?id=PmiO65T9hF0C&pg=PA385&lpg=PA385&dq=java+pattern+formats+eeee+d%2Bth+of%2B+MMMM+yyyy&source=bl&ots=IJN-">https://books.google.com.pk/books?id=PmiO65T9hF0C&pg=PA385&lpg=PA385&dq=java+pattern+formats+eeee+d%2Bth+of%2B+MMMM+yyyy&source=bl&ots=IJN-">https://books.google.com.pk/books?id=PmiO65T9hF0C&pg=PA385&lpg=PA385&dq=java+pattern+formats+eeee+d%2Bth+of%2B+MMMM+yyyy&source=bl&ots=IJN-">https://books.google.com.pk/books?id=PmiO65T9hF0C&pg=PA385&lpg=PA385&dq=java+pattern+formats+eeee+d%2Bth+of%2B+MMMM+yyyy&source=bl&ots=IJN-">https://books.google.com.pk/books?id=PmiO65T9hF0C&pg=PA385&lpg=PA385&dq=java+pattern+formats+eeee+d%2Bth+of%2B+MMMM+yyyy&source=bl&ots=IJN-">https://books.google.com.pk/books

AnWQj&sig=ACfU3U2RJf7iuK3t\_SKARwLSaak9xxV09A&hl=en&sa=X&ved=2ahUKEwi4m6LL3vLoAhVgTRUIHURpC38Q6AEwDHoECBQQAQ#v=onepage&q=java%20pattern%20formats%20eeee%20d%2Bth%20of%2B%20MMMM%20vvvv&f=false

#### **QUESTION 38**

Given this enum declaration:

```
1. enum Letter {
ALPHA(100), BETA(200), GAMMA(300);
3. int v;
4. Letter(int v) { this.v = v; }
5. /* Insert code here */
6. }
Examine this code:
System.out.println(Letter.values()[1]);
What code should be written at line 5 for this code to print 200?
A. public String toString() { return String.valueOf(ALPHA.v); }
B. public String toString() { return String.valueOf(Letter.values()[1]); }
C. public String toString() { return String.valueOf(v); }
D. String toString() { return "200"; }
Correct Answer: C
Section: (none)
Explanation
Explanation/Reference:
Explanation:
```

```
13 - public class Main {
14 - enum Letter {
        ALPHA(100), BETA(200), GAMMA(300);
15
        int v;
16
        Letter(int v) { this.v = v; }
17
       public String toString() { return String.valueOf(v); }
18
19
20
21
22 }
23 - public static void main (String[] args) {
24 System.out.println(Letter.values() [1]);
25
26
   }
27
28
```

Result

compiled and executed in 1.099 sec(s)

200

