

1z0-809.exam

Number: 1z0-809
Passing Score: 800
Time Limit: 120 min



1z0-809

Java SE 8 Programmer II

Exam A**QUESTION 1**

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));`

Correct Answer: B

Section: (none)

Explanation

Explanation/Reference:

QUESTION 2

Given the code fragment:

```
public void recDelete (String dirName) throws IOException {  
    File [ ] listOfFiles = new File (dirName) .listFiles();  
    if (listOfFiles != null && listOfFiles.length >0) {  
        for (File aFile : listOfFiles) {  
            if (aFile.isDirectory ()) {  
                recDelete (aFile.getAbsolutePath ());  
            } else {  
                if (aFile.getName ().endsWith (".class"))  
                    aFile.delete ();  
            }  
        }  
    }  
}
```

Assume that `Projects` contains subdirectories that contain `.class` files and is passed as an argument to the `recDelete ()` method when it is invoked.

What is the result?

- A. The method deletes all the `.class` files in the `Projects` directory and its subdirectories.
- B. The method deletes the `.class` files of the `Projects` directory only.
- C. The method executes and does not make any changes to the `Projects` directory.
- D. The method throws an `IOException`.

Correct Answer: B

Section: (none)

Explanation

Explanation/Reference:

QUESTION 3

Given the code fragments:

```
4. void doStuff() throws ArithmeticException, NumberFormatException, Exception {  
5.     if (Math.random() > -1 throw new Exception ("Try again");  
6. }
```

and

```
24. try {  
25.     doStuff ( );  
26. } catch (ArithmeticException | NumberFormatException | Exception e) {  
27.     System.out.println (e.getMessage()); }  
28. catch (Exception e) {  
29.     System.out.println (e.getMessage()); }  
30. }
```

Which modification enables the code to print `Try again`?

- A. Comment the lines 28, 29 and 30.
- B. Replace line 26 with:
 `} catch (Exception | ArithmeticException | NumberFormatException e) {`
- C. Replace line 26 with:
 `} catch (ArithmeticException | NumberFormatException e) {`
- D. Replace line 27 with:

```
throw e;
```

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:

QUESTION 4

Given the definition of the Country class:

```
public class country {  
    public enum Continent {ASIA, EUROPE}  
    String name;  
    Continent region;  
  
    public Country (String na, Continent reg)    {  
        name = na, region = reg;  
    }  
    public String getName () {return name;}  
    public Continent getRegion () {return region;}  
}
```

and the code fragment:

```
List<Country> couList = Arrays.asList (  
    new Country ("Japan", Country.Continent.ASIA),  
    new Country ("Italy", Country.Continent.EUROPE),  
    new Country ("Germany", Country.Continent.EUROPE));  
Map<Country.Continent, List<String>> regionNames = couList.stream ()  
    .collect(Collectors.groupingBy (Country ::getRegion,  
        Collectors.mapping(Country::getName, Collectors.toList())));  
System.out.println(regionNames);
```

- A. {EUROPE = [Italy, Germany], ASIA = [Japan]}
- B. {ASIA = [Japan], EUROPE = [Italy, Germany]}
- C. {EUROPE = [Germany, Italy], ASIA = [Japan]}
- D. {EUROPE = [Germany], EUROPE = [Italy], ASIA = [Japan]}

Correct Answer: A

Section: (none)

Explanation

Explanation/Reference:**QUESTION 5**

Given the code fragment:

```
Map<Integer, String> books = new TreeMap<>();  
books.put (1007, "A");  
books.put (1002, "C");  
books.put (1001, "B");  
books.put (1003, "B");  
System.out.println (books);
```

What is the result?

- A. {1007 = A, 1002 = C, 1001 = B, 1003 = B}
- B. {1001 = B, 1002 = C, 1003 = B, 1007 = A}
- C. {1002 = C, 1003 = B, 1007 = A}
- D. {1007 = A, 1001 = B, 1003 = B, 1002 = C}

Correct Answer: D

Section: (none)

Explanation

Explanation/Reference:**QUESTION 6**

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 Programing");  
Book b2 = new Book (102, "Java Programing");  
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));

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:

QUESTION 7

Given the content of /resources/Message.properties:

```
welcome1="Good day!"
```

and given the code fragment:

```
Properties prop = new Properties ();  
FileInputStream fis = new FileInputStream ("/resources/Message.properties");  
prop.load(fis);  
System.out.println(prop.getProperty("welcome1"));  
System.out.println(prop.getProperty("welcome2", "Test")); //line n1  
System.out.println(prop.getProperty("welcome3"));
```

What is the result?

- A. Good day!
 Test
 followed by an Exception stack trace
- B. Good day!
 followed by an Exception stack trace
- C. Good day!
 Test
 null
- D. A compilation error occurs at line n1.

Correct Answer: D

Section: (none)

Explanation

Explanation/Reference:

QUESTION 8

Which action can be used to load a database driver by using JDBC3.0?

- A. Add the driver class to the META-INF/services folder of the JAR file.
- B. Include the JDBC driver class in a jdbc.properties file.
- C. Use the `java.lang.Class.forName` method to load the driver class.
- D. Use the `DriverManager.getDriver` method to load the driver class.

Correct Answer: D

Section: (none)

Explanation

Explanation/Reference:

QUESTION 9

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

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:

QUESTION 10

Given the code fragments:

```
class MyThread implements Runnable {  
    private static AtomicInteger count = new AtomicInteger (0);  
    public void run ()    {  
        int x = count.incrementAndGet();  
        System.out.print (x+" ");  
    }  
}
```

and

```
Thread thread1 = new Thread(new MyThread());  
Thread thread2 = new Thread(new MyThread());  
Thread thread3 = new Thread(new MyThread());  
  
Thread [] ta = {thread1, thread2, thread3};  
for (int x= 0; x < 3; x++)    {  
    ta[x].start();  
}
```

Which statement is true?

- A. The program prints 1 2 3 and the order is unpredictable.
- B. The program prints 1 2 3.
- C. The program prints 1 1 1.
- D. A compilation error occurs.

Correct Answer: B

Section: (none)

Explanation

Explanation/Reference:

QUESTION 11

Given the code fragment:

```
public static void main (String [ ] args) throws IOException {  
    BufferedReader br = new BufferedReader (new InputStremReader (System.in));  
    System.out.print ("Enter GDP: ");  
    //line 1  
}
```

Which code fragment, when inserted at line 1, enables the code to read the GDP from the user?

- A. `int GDP = Integer.parseInt (br.readLine());`
- B. `int GDP = br.read();`
- C. `int GDP = br.nextInt();`
- D. `int GDP = Integer.parseInt (br.next());`

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:

QUESTION 12

Given the code fragment:

```
Path source = Paths.get ("/data/december/log.txt");  
Path destination = Paths.get("/data");  
Files.copy (source, destination);
```

and assuming that the file `/data/december/log.txt` is accessible and contains:

`10-Dec-2014 - Executed successfully`

What is the result?

- A. A file with the name `log.txt` is created in the `/data` directory and the content of the `/data/december/log.txt` file is copied to it.
- B. The program executes successfully and does NOT change the file system.
- C. A `FileNotFoundException` is thrown at run time.
- D. A `FileAlreadyExistsException` is thrown at run time.

Correct Answer: B

Section: (none)

Explanation

Explanation/Reference:

QUESTION 13

Given:

```
class Student {
    String course, name, city;
    public Student (String name, String course, String city) {
        this.course = course; this.name = name; this.city = city;
    }
    public String toString() {
        return course + ":" + name + ":" + city;
    }
}
```

and the code fragment:

```
List<Student> stds = Arrays.asList(
    new Student ("Jessy", "Java ME", "Chicago"),
    new Student ("Helen", "Java EE", "Houston"),
    new Student ("Mark", "Java ME", "Chicago"));
stds.stream()
    .collect(Collectors.groupingBy(Student::getCourse))
    .forEach(src, res) -> System.out.println(src));
```

What is the result?

- A. [Java EE: Helen:Houston]
[Java ME: Jessy:Chicago, Java ME: Mark:Chicago]
- B. Java EE
Java ME
- C. [Java ME: Jessy:Chicago, Java ME: Mark:Chicago]
[Java EE: Helen:Houston]

D. A compilation error occurs.

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:

QUESTION 14

Given the code fragments:

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

and

```
List<String> strs = 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 at line n1.

D. A compilation error occurs at line n2.

Correct Answer: A

Section: (none)

Explanation

Explanation/Reference:**QUESTION 15**

Given:

```
public class Emp {
    String fName;
    String lName;
    public Emp (String fn, String ln) {
        fName = fn;
        lName = ln;
    }
    public String getfName() { return fName; }
    public String getlName() { return lName; }
}
```

and the code fragment:

```
List<Emp> emp = Arrays.asList (
    new Emp ("John", "Smith"),
    new Emp ("Peter", "Sam"),
    new Emp ("Thomas", "Wale"));
emp.stream()
    //line n1
    .collect(Collectors.toList());
```

Which code fragment, when inserted at line n1, sorts the employees list in descending order of fName and then ascending order of lName?

- A. `.sorted (Comparator.comparing(Emp::getfName).reversed().thenComparing(Emp::getlName))`
- B. `.sorted (Comparator.comparing(Emp::getfName).thenComparing(Emp::getlName))`
- C. `.map(Emp::getfName).sorted(Comparator.reverseOrder())`
- D. `.map(Emp::getfName).sorted(Comparator.reverseOrder()).map(Emp::getlName).reversed`

Correct Answer: A

Section: (none)

Explanation

Explanation/Reference:

QUESTION 16

Given:

```
public enum USCurrency    {
    PENNY (1),
    NICKLE(5),
    DIME (10),
    QUARTER(25);

    private int value;

    public USCurrency(int value)    {
        this.value = value;
    }
    public int getValue()    {return value;}
}
public class Coin {
    public static void main (String[] args)    {
        USCurrency usCoin =new USCurrency.DIME;
        System.out.println(usCoin.getValue());
    }
}
```

Which two modifications enable the given code to compile?

- A. Nest the USCurrency enumeration declaration within the Coin class.
- B. Make the USCurrency enumeration constructor private.
- C. Remove the new keyword from the instantiation of usCoin.
- D. Make the getter method of value as a static method.
- E. Add the final keyword in the declaration of value.

Correct Answer: AE

Section: (none)

Explanation

Explanation/Reference:

QUESTION 17

Given:

```
class ImageScanner implements AutoCloseable {
    public void close () throws Exception {
        System.out.print ("Scanner closed.");
    }
}
```

```
}  
public void scanImage () throws Exception {  
    System.out.print ("Scan.");  
    throw new Exception("Unable to scan.");  
}  
}  
class ImagePrinter implements AutoCloseable {  
    public void close () throws Exception {  
        System.out.print ("Printer closed.");  
    }  
    public void printImage () {System.out.print("Print.");    }  
}
```

and this code fragment:

```
try (ImageScanner ir = new ImageScanner();  
    ImagePrinter iw = new ImagePrinter()) {  
    ir.scanImage();  
    iw.printImage();  
} catch (Exception e) {  
    System.out.print(e.getMessage());  
}
```

What is the result?

- ☒ A. Scan.Printer closed. Scanner closed. Unable to scan.
- ☐ B. Scan.Scanner closed. Unable to scan.
- ☐ C. Scan. Unable to scan.
- ☐ D. Scan. Unable to scan. Printer closed.

Correct Answer: B

Section: (none)

Explanation

Explanation/Reference:

QUESTION 18

Given the structure of the STUDENT table:

Student (id INTEGER, name VARCHAR)

Given:

```
public class Test    {
    static Connection newConnection =null;
    public static Connection get DBConnection () throws SQLException {
        try (Connection con = DriverManager.getConnection(URL, username, password))    {
            newConnection = con;
        }
        return newConnection;
    }
    public static void main (String [] args) throws SQLException {
        get DBConnection ();
        Statement st = newConnection.createStatement();
        st.executeUpdate("INSERT INTO student VALUES (102, 'Kelvin')");
    }
}
```

Assume that:

- The required database driver is configured in the classpath.
- The appropriate database is accessible with the URL, userName, and passWord exists.
- The SQL query is valid.

What is the result?

- A. The program executes successfully and the STUDENT table is updated with one record.
- B. The program executes successfully and the STUDENT table is NOT updated with any record.
- C. A `SQLException` is thrown as runtime.
- D. A `NullPointerException` is thrown as runtime.

Correct Answer: D

Section: (none)

Explanation

Explanation/Reference:

QUESTION 19

Given the code fragments:

```
class Employee {
    Optional<Address> address;
    Employee (Optional<Address> address)    {
        this.address = address;
    }
}
```

```
public Optional<Address> getAddress() { return address; }  
}  
  
class Address {  
    String city = "New York";  
    public String getCity() { return city; }  
    public String toString() {  
        return city;  
    }  
}
```

and

```
Address address = null;  
Optional<Address> addr1 = Optional.ofNullable (address);  
Employee e1 = new Employee (addr1);  
String eAddress = (addr1.isPresent()) ? addr1.get().getCity() : "City Not  
available";
```

What is the result?

- A. New York
- B. City Not available
- C. null
- D. A NoSuchElementException is thrown at run time.

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:

QUESTION 20

Given the code fragment:

```
Stream<Path> files = Files.walk(Paths.get(System.getProperty("user.home")));  
files.forEach (fName -> {                               //line n1  
    try {  
        Path aPath = fName.toAbsolutePath();           //line n2  
        System.out.println(fName + ":"  
            + Files.readAttributes(aPath, Basic.File.Attributes.class).creationTime  
            );  
    } catch (IOException ex) {
```



```
ex.printStackTrace();  
  
});
```

What is the result?

- A. All files and directories under the home directory are listed along with their attributes.
- B. A compilation error occurs at line n1.
- C. The files in the home directory are listed along with their attributes.
- D. A compilation error occurs at line n2.

Correct Answer: A

Section: (none)

Explanation

Explanation/Reference:

QUESTION 21

Given:

```
class Vehicle    {  
    int vno;  
    String name;  
  
    public Vehicle (int vno, String name)    {  
        this.vno = vno,;  
        this.name = name;  
    }  
    public String toString ()    {  
        return vno + ":" + name;  
    }  
}
```

and this code fragment:

```
Set<Vehicle>  vehicles = new TreeSet <> ();  
vehicles.add(new Vehicle (10123, "Ford"));  
vehicles.add(new Vehicle (10124, "BMW"));  
System.out.println(vehicles);
```

What is the result?

- A. 10123 Ford
10124 BMW
- B. 10124 BMW
10123 Ford
- C. A compilation error occurs.
- D. A `ClassCastException` is thrown at run time.

Correct Answer: B

Section: (none)

Explanation

Explanation/Reference:

QUESTION 22

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 at line n1.

Correct Answer: A

Section: (none)

Explanation

Explanation/Reference:

QUESTION 23

Given:

```
public class Test<T>    {
    private T t;
    public T get () {
        return t;
    }
    public void set (T t)    {
        this.t = t;
    }
    public static void main (String args [ ] )    {
        Test<String> type = new Test<>();
        Test type 1 = new Test ();                //line n1
        type.set("Java");
        type1.set(100);                            //line n2
        System.out.print(type.get() + " " + type1.get());
    }
}
```

What is the result?

A. Java 100

B. java.lang.string@<hashcode>java.lang.Integer@<hashcode>

C. A compilation error occurs. To rectify it, replace line n1 with:

```
Test<Integer> type1 = new Test<>();
```

D. A compilation error occurs. To rectify it, replace line n2 with:

```
type1.set (Integer(100));
```

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:

QUESTION 24

Given the definition of the Vehicle class:

```
class Vehicle {
    String name;
    void setName (String name) {
        this.name = name;
    }
    String getName() {
        return name;
    }
}
```

Which action encapsulates the Vehicle class?

- A. Make the Vehicle class public.
- B. Make the name variable public.
- C. Make the setName method public.
- D. Make the name variable private.
- E. Make the setName method private.
- F. Make the getName method private.

Correct Answer: B

Section: (none)

Explanation

Explanation/Reference:

QUESTION 25

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.

Correct Answer: D

Section: (none)

Explanation

Explanation/Reference:

QUESTION 26

Given the code fragments:

```
public class Book implements Comparator<Book> {
    String name;
    double price;
    public Book () {}
    public Book(String name, double price) {
        this.name = name;
        this.price = price;
    }
}
```

```
public int compare(Book b1, Book b2)    {  
    return b1.name.compareTo(b2.name);  
}  
public String toString()    {  
    return name + ":" + price;  
}  
}
```

and

```
List<Book>books = Arrays.asList (new Book ("Beginning with Java", 2), new book ("A  
Guide to Java Tour", 3));  
Collections.sort(books, new Book());  
System.out.print(books);
```

What is the result?

- A. [A Guide to Java Tour:3, Beginning with Java:2]
- B. [Beginning with Java:2, A Guide to Java Tour:3]
- C. A compilation error occurs because the Book class does not override the abstract method `compareTo()`.
- D. An Exception is thrown at run time.

Correct Answer: A

Section: (none)

Explanation

Explanation/Reference:

QUESTION 27

Given the code fragment:

```
List<String> listVal = Arrays.asList("Joe", "Paul", "Alice", "Tom");  
System.out.println (  
    // line n1  
);
```

Which code fragment, when inserted at line n1, enables the code to print the count of string elements whose length is greater than three?

- A. `listVal.stream().filter(x -> x.length()>3).count()`
- B. `listVal.stream().map(x -> x.length()>3).count()`
- C. `listVal.stream().peek(x -> x.length()>3).count().get()`

D. `listVal.stream().filter(x -> x.length()>3).mapToInt(x -> x).count()`

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:

QUESTION 28

Given the code fragments:

```
class Caller implements Callable<String>    {
    String str;
    public Caller (String s) {this.str=s;}
    public String call()throws Exception { return str.concat ("Caller");}
}
class Runner implements Runnable    {
String str;
    public Runner (String s) {this.str=s;}
    public void run () { System.out.println (str.concat ("Runner"));}
}
```

and

```
public static void main (String[] args) InterruptedException, ExecutionException    {
    ExecutorService es = Executors.newFixedThreadPool(2);
    Future f1 = es.submit (new Caller ("Call"));
    Future f2 = es.submit (new Runner ("Run"));
    String str1 = (String) f1.get();
    String str2 = (String) f2.get();           //line n1
    System.out.println(str1+ ":" + str2);
}
```

What is the result?

- A.** The program prints:
Run Runner
Call Caller : null
And the program does not terminate.
- B.** The program terminates after printing:
Run Runner
Call Caller : Run
- C.** A compilation error occurs at line n1.

D. An `Execution` is thrown at run time.

Correct Answer: A

Section: (none)

Explanation

Explanation/Reference:

QUESTION 29

Given:

```
public class Canvas implements Drawable {  
    public void draw ()    { }  
}  
  
public abstract class Board extends Canvas { }  
  
public class Paper extends Canvas {  
    protected void draw (int color)    { }  
}  
public class Frame extends Canvas implements Drawable {  
    public void resize ()    { }  
}  
public interface Drawable {  
    public abstract void draw ();  
}
```

Which statement is true?

- A. `Board` does not compile.
- B. `Paper` does not compile.
- C. `Frame` does not compile.
- D. `Drawable` does not compile.
- E. All classes compile successfully.

Correct Answer: B

Section: (none)

Explanation

Explanation/Reference:

QUESTION 30

Given the code fragment:

```
List<String> str = Arrays.asList ("my", "pen", "is", "your", "pen");
Predicate<String> test = s -> {
    int i = 0;
    boolean result = s.contains ("pen");
    System.out.print(i++) + ":";
    return result;
};
str.stream()
    .filter(test)
    .findFirst()
    .ifPresent(System.out ::print);
```

What is the result?

- A. 0 : 0 : pen
- B. 0 : 1 : pen
- C. 0 : 0 : 0 : 0 : 0 : pen
- D. 0 : 1 : 2 : 3 : 4 :
- E. A compilation error occurs.

Correct Answer: E

Section: (none)

Explanation

Explanation/Reference:

QUESTION 31

Given the code fragment:

```
List<String> empDetails = Arrays.asList("100, Robin, HR",
                                     "200, Mary, AdminServices",
                                     "101, Peter, HR");

empDetails.stream()
    .filter(s-> s.contains("1"))
    .sorted()
    .forEach(System.out::println); //line n1
```

What is the result?

- A. 100, Robin, HR
101, Peter, HR
- B. A compilation error occurs at line n1.
- C. 100, Robin, HR
101, Peter, HR
200, Mary, AdminServices
- D. 100, Robin, HR
200, Mary, AdminServices
101, Peter, HR

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:

QUESTION 32

Given:

```
interface Rideable {Car getCar (String name); }

class Car {
    private String name;
    public Car (String name) {
        this.name = name;
    }
}
```

Which code fragment creates an instance of Car?

- A. Car auto = Car ("MyCar"): : new;
- B. Car auto = Car : : new;
Car vehicle = auto : : getCar("MyCar");
- C. Rideable rider = Car : : new;
Car vehicle = rider.getCar("MyCar");
- D. Car vehicle = Rideable : : new : : getCar("MyCar");

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:**QUESTION 33**

Which statement is true about the single abstract method of the `java.util.function.Function` interface?

- A. It accepts one argument and returns `void`.
- B. It accepts one argument and returns `boolean`.
- C. It accepts one argument and always produces a result of the same type as the argument.
- D. It accepts an argument and produces a result of any data type.

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:

Reference: <http://winterbe.com/posts/2014/03/16/java-8-tutorial/> (functions)

QUESTION 34

Which statement is true about the `DriverManager` class?

- A. It returns an instance of `Connection`.
- B. it executes SQL statements against the database.
- C. It only queries metadata of the database.
- D. it is written by different vendors for their specific database.

Correct Answer: A

Section: (none)

Explanation

Explanation/Reference:

Explanation: The `DriverManager` returns an instance of `Doctrine\DBAL\Connection` which is a wrapper around the underlying driver connection (which is often a PDO instance).

Reference: <http://doctrine-dbal.readthedocs.org/en/latest/reference/configuration.html>

QUESTION 35

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()`

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:

QUESTION 36

Given:

```
public final class IceCream {  
    public void prepare() {}  
}  
public class Cake {  
    public final void bake(int min, int temp) {}  
    public void mix() {}  
}  
public class Shop {  
    private Cake c = new Cake ();  
    private final double discount = 0.25;  
    public void makeReady () { c.bake(10, 120); }  
}  
public class Bread extends Cake {  
    public void bake(int minutes, int temperature) {}  
    public void addToppings() {}  
}
```

Which statement is true?

- A. A compilation error occurs in `IceCream`.
- B. A compilation error occurs in `Cake`.
- C. A compilation error occurs in `Shop`.

- D. A compilation error occurs in `Bread`
- E. All classes compile successfully.

Correct Answer: D

Section: (none)

Explanation

Explanation/Reference:

QUESTION 37

Which two statements are true about localizing an application?

- A. Support for new regional languages does not require recompilation of the code.
- B. Textual elements (messages and GUI labels) are hard-coded in the code.
- C. Language and region-specific programs are created using localized data.
- D. Resource bundle files include data and currency information.
- E. Language codes use lowercase letters and region codes use uppercase letters.

Correct Answer: AE

Section: (none)

Explanation

Explanation/Reference:

Reference: <http://docs.oracle.com/javase/7/docs/technotes/guides/intl/>

QUESTION 38

Which statement is true about `java.util.stream.Stream`?

- A. A stream cannot be consumed more than once.
- B. The execution mode of streams can be changed during processing.
- C. Streams are intended to modify the source data.
- D. A parallel stream is always faster than an equivalent sequential stream.

Correct Answer: B

Section: (none)

Explanation

Explanation/Reference:

QUESTION 39

The data.doc, data.txt and data.xml files are accessible and contain text.
Given the code fragment:

```
Stream<Path> paths = Stream.of (Paths. get("data.doc"),  
    Paths. get("data.txt"),  
    Paths. get("data.xml"));  
paths.filter(s-> s.toString().endsWith("txt")).forEach(  
    s -> {  
        try {  
            Files.readAllLines(s)  
                .stream()  
                .forEach(System.out::println); //line n1  
        } catch (IOException e) {  
            System.out.println("Exception");  
        }  
    }  
);
```

What is the result?

- A. The program prints the content of data.txt file.
- B. The program prints:
Exception
<<The content of the data.txt file>>
Exception
- C. A compilation error occurs at line n1.
- D. The program prints the content of the three files.

Correct Answer: D

Section: (none)

Explanation

Explanation/Reference:

QUESTION 40

Given:

```
final class Folder {           //line n1  
    //line n2
```

```
        public void open () {  
            System.out.print("Open");  
        }  
    }  
    public class Test {  
        public static void main (String [] args) throws Exception    {  
            try (Folder f = new Folder())    {  
                f.open();  
            }  
        }  
    }  
}
```

Which two modifications enable the code to print Open Close?

- A. Replace line n1 with:
class Folder implements AutoCloseable {
- B. Replace line n1 with:
class Folder extends Closeable {
- C. Replace line n1 with:
class Folder extends Exception {
- D. At line n2, insert:
final void close () {
 System.out.print("Close");
}
- E. At line n2, insert:
public void close () throws IOException {
 System.out.print("Close");
}

Correct Answer: AC

Section: (none)

Explanation

Explanation/Reference:

QUESTION 41

Given the code fragment:

```
List<Integer> codes = Arrays.asList (10, 20);  
UnaryOperator<Double> uo = s -> s +10.0;  
codes.replaceAll(uo);  
codes.forEach(c -> System.out.println(c));
```

What is the result?

- A. 20.0
30.0
- B. 10
- C. A compilation error occurs.
- D. A `NumberFormatException` is thrown at run time.

Correct Answer: A

Section: (none)

Explanation

Explanation/Reference:

QUESTION 42

Given:

```
public class Customer {
    private String fName;
    private String lName;
    private static int count;
    public customer (String first, String last) {fName = first, lName = last;
    ++count;}
    static { count = 0; }
    public static int getCount() {return count; }
}

public class App {
    public static void main (String [] args) {
        Customer c1 = new Customer("Larry", "Smith");
        Customer c2 = new Customer("Pedro", "Gonzales");
        Customer c3 = new Customer("Penny", "Jones");
        Customer c4 = new Customer("Lars", "Svenson");
        c4 = null;
        c3 = c2;
        System.out.println (Customer.getCount());
    }
}
```

What is the result?

- A. 0
- B. 2
- C. 3
- D. 4
- E. 5

Correct Answer: A

Section: (none)

Explanation

Explanation/Reference:

QUESTION 43

Given:

Item table

- ID, INTEGER: PK
- DESCRIP, VARCHAR(100)
- PRICE, REAL
- QUANTITY< INTEGER

And given the code fragment:

```
9. try {
10.     Connection conn = DriverManager.getConnection(dbURL, username, password);
11.     String query = "Select * FROM Item WHERE ID = 110";
12.     Statement stmt = conn.createStatement();
13.     ResultSet rs = stmt.executeQuery(query);
14.     while(rs.next()) {
15.         System.out.println("ID:          " + rs.getInt("Id"));
16.         System.out.println("Description:    " + rs.getString("Descrip"));
17.         System.out.println("Price:         " + rs.getDouble("Price"));
18.         System.out.println("Quantity:     " + rs.getInt("Quantity"));
19.     }
20. } catch (SQLException se) {
21.     System.out.println("Error");
22. }
```

Assume that:

The required database driver is configured in the classpath.

The appropriate database is accessible with the dbURL, userName, and passWord exists.

The SQL query is valid.

What is the result?

- A. An exception is thrown at runtime.
- B. Compilation fails.
- C. The code prints `Error`.
- D. The code prints information about Item 110.

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:

QUESTION 44

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. At line n2, insert `CyclicBarrier cb = new CyclicBarrier(2, master);`
- B. Replace line n1 with `class Master extends Thread {`
- C. At line n2, insert `CyclicBarrier cb = new CyclicBarrier(1, master);`**
- D. At line n2, insert `CyclicBarrier cb = new CyclicBarrier(master);`

Correct Answer: B

Section: (none)

Explanation

Explanation/Reference:

QUESTION 45

Given the code fragment:

```
String str = "Java is a programming language";  
ToIntFunction<String> indexVal = str::indexOf; //line n1  
int x = indexVal.applyAsInt("Java");           //line n2  
System.out.println(x);
```

What is the result?

- A. 0**
- B. 1
- C. A compilation error occurs at line n1.
- D. A compilation error occurs at line n2.

Correct Answer: A

Section: (none)

Explanation

Explanation/Reference:

QUESTION 46

Given the code fragment:

```
List<String> codes = Arrays.asList ("DOC", "MPEG", "JPEG");  
codes.forEach (c -> System.out.print(c + " "));
```

```
String fmt = codes.stream()  
    .filter (s-> s.contains ("PEG"))  
    .reduce((s, t) -> s + t).get();  
System.out.println("\n" + fmt);
```

What is the result?

- A. DOC MPEG JPEG
MPEGJPEG
- B. DOC MPEG MPEGJPEG
MPEGMPEGJPEG
- C. MPEGJPEG
MPEGJPEG
- D. The order of the output is unpredictable.

Correct Answer: A

Section: (none)

Explanation

Explanation/Reference:

QUESTION 47

Given the code fragment:

```
List<String> nL = Arrays.asList("Jim", "John", "Jeff");  
Function<String, String> funVal = s -> "Hello : ".contact(s);  
nL.Stream()  
    .map(funVal)  
    .peek(System.out::print);
```

What is the result?

- A. Hello : Jim Hello : John Hello : Jeff
- B. Jim John Jeff
- C. The program prints nothing.
- D. A compilation error occurs.

Correct Answer: D

Section: (none)

Explanation

Explanation/Reference:**QUESTION 48**

Given:

```
public interface Moveable<Integer>    {  
    public default void walk (Integer distance) {System.out.println("Walking");}  
    public void run(Integer distance);  
}
```

Which statement is true?

- ☒ A. Moveable can be used as below:
Moveable<Integer> animal = n -> System.out.println("Running" + n);
animal.run(100);
animal.walk(20);
- ☐ B. Moveable can be used as below:
Moveable<Integer> animal = n -> n + 10;
animal.run(100);
animal.walk(20);
- ☒ C. Moveable can be used as below:
Moveable animal = (Integer n) -> System.out.println(n);
animal.run(100);
Moveable.walk(20);
- ☐ D. Movable cannot be used in a lambda expression.

Correct Answer: B

Section: (none)

Explanation

Explanation/Reference:**QUESTION 49**

Which two code blocks correctly initialize a Locale variable?

- A. Locale loc1 = "UK";
- B. Locale loc2 = Locale.getInstance("ru");
- C. Locale loc3 = Locale.getLocaleFactory("RU");
- D. Locale loc4 = Locale.UK;
- E. Locale loc5 = new Locale ("ru", "RU");

Correct Answer: DE

Section: (none)

Explanation

Explanation/Reference:

QUESTION 50

Given:

```
class FuelNotAvailException extends Exception {    }
class Vehicle    {
    void ride() throws FuelNotAvailException {    //line n1
        System.out.println("Happy Journey!");
    }
}
class SolarVehicle extends Vehicle    {
    public void ride () throws Exception    {    //line n2
        super ride ();
    }
}
```

and the code fragment:

```
public static void main (String[] args) throws FuelNotAvailException, Exception    {
    Vehicle v = new SolarVehicle ();
    v.ride();
}
```

Which modification enables the code fragment to print Happy Journey!?

- A. Replace line n1 with `public void ride() throws FuelNotAvailException {`
- B. Replace line n1 with `protected void ride() throws Exception {`
- C. Replace line n2 with `void ride() throws Exception {`
- D. Replace line n2 with `private void ride() throws FuelNotAvailException {`

Correct Answer: B

Section: (none)

Explanation

Explanation/Reference:

QUESTION 51

Given the definition of the Emp class:

```
public class Emp
{
    private String eName;
    private Integer eAge;

    Emp(String eN, Integer eA)    {
        this.eName = eN;
        this.eAge = eA;
    }
    public Integer getEAge () {return eAge;}
    public String getEName () {return eName;}
}
```

and code fragment:

```
List<Emp>li = Arrays.asList(new Emp("Sam", 20), New Emp("John", 60), New Emp("Jim", 51));
Predicate<Emp> agVal = s -> s.getEAge() > 50;           //line n1
li = li.stream().filter(agVal).collect(Collectors.toList());
Stream<String> names = li.stream().map.(Emp::getEName);   //line n2
names.forEach(n -> System.out.print(n + " "));
```

What is the result?

- A. Sam John Jim
- B. John Jim
- C. A compilation error occurs at line n1.
- D. A compilation error occurs at line n2.

Correct Answer: A

Section: (none)

Explanation

Explanation/Reference:

QUESTION 52

For which three objects must a vendor provide implementations in its JDBC driver?

- A. Time

- B. Date
- C. Statement
- D. ResultSet
- E. Connection
- F. SQLException
- G. DriverManager

Correct Answer: CDE

Section: (none)

Explanation

Explanation/Reference:

Explanation: Database vendors support JDBC through the JDBC driver interface or through the ODBC connection. Each driver must provide implementations of java.sql.Connection, java.sql.Statement, java.sql.PreparedStatement, java.sql.CallableStatement, and java.sql.ResultSet. They must also implement the java.sql.Driver interface for use by the generic java.sql.DriverManager interface.

QUESTION 53

Given the code fragment:

```
LocalDate valentinesDay = LocalDate.of(2015, Month.FEBRUARY, 14);  
LocalDate nextYear = valentinesDay.plusYears(1);  
nextYear.plusDays(15); //line n1  
System.out.println(nextYear);
```

What is the result?

- A. 2016-02-14
- B. A DateTimeException is thrown.
- C. 2016-02-29
- D. A compilation error occurs at line n1.

Correct Answer: B

Section: (none)

Explanation

Explanation/Reference:

QUESTION 54

Given the code fragment:


```
BiFunction<Integer, Double, Integer> val = (t1, t2) -> t1 + t2;    //line n1  
System.out.println(val.apply(10, 10.5));
```

What is the result?

- A. 20
- B. 20.5
- C. A compilation error occurs at line n1.
- D. A compilation error occurs at line n2.

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:

QUESTION 55

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

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

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:

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