# Module6-字符串、格式化以及封装类

## 一、选择题

Question 1
Given:
11. class Converter {
12. public static void main(String[] args) {
13. Integer i = args[0];
14. int j = 12;
15. System.out.println("It is " + (j==i) + "that j==i.");
16. }
17. }
What is the result when the programmer attempts to compile the code and run it with the command java Converter 12?
A. It is true that j==i.
B. It is false that j==i.
C. An exception is thrown at runtime.
D. Compilation fails because of an error in line 13.

Answer: D

Question 2
Given:
10. public class MyClass {
11.
12. public Integer startingI;
13. public void methodA() {
14. Integer i = new Integer(25);
15. startingI = i;
16. methodB(i);
17. }
18. private void methodB(Integer i2) {
19. i2 = i2.intValue();
20.
21. }
22. }
If methodA is invoked, which two are true at line 20? (Choose two.)
A. i2 == startingI returns true.
B. i2 == startingI returns false.
C. i2.equals(startingI) returns true.
D. i2.equals(startingI) returns false.

Answer: BC

Question 3
Given:

```
11. public class Yikes {
12.
13. public static void go(Long n) {System.out.println("Long ");}
14. public static void go(Short n) {System.out.println("Short ");}
15. public static void go(int n) {System.out.println("int ");}
16. public static void main(String [] args) {
17. short y= 6;
18. long z= 7;
19. go(y);
20. go(z);
21. }
22. }
```

What is the result?
A. int Long
B. Short Long
C. Compilation fails.
D. An exception is thrown at runtime.

Answer: A

Question 4
Given:

```
1. public class Target {
2. private int i = 0;
3. public int addOne() {
4. return ++i;
5. }
6. }
```

And:

```
1. public class Client {
2. public static void main(String[] args) {
3. System.out.println(new Target().addOne());
4. }
5. }
```

Which change can you make to Target without affecting Client?
A. Line 4 of class Target can be changed to return i++;
B. Line 2 of class Target can be changed to private int i = 1;
C. Line 3 of class Target can be changed to private int addOne() {
D. Line 2 of class Target can be changed to private Integer i = 0;

Answer: D

Question 5
Given:

```
12. public class Wow {
13. public static void go(short n) {System.out.println("short"); }
14. public static void go(Short n) {System.out.println("SHORT");}
15. public static void go(Long n) {System.out.println(" LONG"); }
16. public static void main(String [] args) {
17. Short y= 6;
18.int z=7;
19. go(y);
20. go(z);
21. }
22. }
```

What is the result?
A. short LONG
B. SHORT LONG
C. Compilation fails.
D. An exception is thrown at runtime.

Answer: C

Question 6
Given:

```
1. public class TestString 1 {
2. public static void main(String[] args) {
3. String str = "420";
4. str += 42;
5. System.out.print(str);
6. }
7. }
```

What is the output?
A. 42
B. 420
C. 462
D. 42042
E. Compilation fails.
F. An exception is thrown at runtime.

Answer: D

Question 7
Given:

```
11. public static void test(String str) {
12. int check = 4;
13. if (check = str.length()) {
```

```
14. System.out.print(str.charAt(check -= 1) +", ");
15. } else {
16. System.out.print(str.charAt(0) + ", ");
17. }
18. }
```
and the invocation:
```
21. test("four");
22. test("tee");
23. test("to");
```
What is the result?

A. r, t, t,
B. r, e, o,
C. Compilation fails.
D. An exception is thrown at runtime.

Answer: C

Question 8
Given this method in a class:
```
21. public String toString() {
22. StringBuffer buffer = new StringBuffer();
23. buffer.append('<');
24. buffer.append(this.name);
25. buffer.append('>');
26. return buffer.toString();
27. }
```
Which is true?
A. This code is NOT thread-safe.
B. The programmer can replace StringBuffer with StringBuilder with no other changes.
C. This code will perform well and converting the code to use StringBuilder will not enhance the performance.
D. This code will perform poorly. For better performance, the code should be rewritten: return "<"+ this.name + ">";

Answer: B

Question 9
Given:
```
1. public class MyLogger {
2. private StringBuilder logger = new StringBuilder();
3. public void log(String message, String user) {
4. logger.append(message);
5. logger.append(user);
6. }
```

7. }
The programmer must guarantee that a single MyLogger object works properly for a multi-threaded system. How must this code be changed to be thread-safe?
A. synchronize the log method
B. replace StringBuilder with StringBuffer
C. No change is necessary, the current MyLogger code is already thread-safe.
D. replace StringBuilder with just a String object and use the string concatenation (+=) within the log method

Answer: A

Question 10
Given:
11. public String makinStrings() {
12. String s = "Fred";
13. s = s + "47";
14. s = s.substring(2, 5);
15. s = s.toUpperCase();
16. return s.toString();
17. }
How many String objects will be created when this method is invoked?
A. 1
B. 2
C. 3
D. 4
E. 5
F. 6

Answer: C

Question 11
Given:
1. public class TestString3 {
2. public static void main(String[] args) {
3. // insert code here
5. System.out.println(s);
6. }
7. }
Which two code fragments, inserted independently at line 3, generate the output 4247? (Choose two.)

A. String s = "123456789";
s = (s-"123").replace(1,3,"24") - "89";

B. StringBuffer s = new StringBuffer("123456789");
s.delete(0,3).replace( 1,3, "24").delete(4,6);

C. StringBuffer s = new StringBuffer("123456789");
s.substring(3,6).delete( 1 ,3).insert( 1, "24");

D. StringBuilder s = new StringBuilder("123456789");
s.substring(3,6).delete( 1 ,2).insert( 1, "24");

E. StringBuilder s = new StringBuilder("123456789");
s.delete(0,3).delete( 1 ,3).delete(2,5).insert( 1, "24");

Answer: BE

Question 12
Given:
11. String test = "This is a test";
12. String[] tokens = test.split("\s");
13. System.out.println(tokens.length);
What is the result?
A. 0
B. 1
C. 4
D. Compilation fails.
E. An exception is thrown at runtime.

Answer: D

Question 13
Given:
11. String test= "a1b2c3";
12. String[] tokens = test.split("\\d");
13. for(String s: tokens) System.out.print(s +" ");
What is the result?
A. a b c
B. 1 2 3
C. a1b2c3
D. a1 b2 c3
E. Compilation fails.
F. The code runs with no output.
G. An exception is thrown at runtime.

Answer: A

Question 14
Given:
11. String test = "Test A. Test B. Test C.";
12. // insert code here
13. String[] result = test.split(regex);
Which regular expression inserted at line 12 will correctly split test into "Test A," "Test B," and "Test C"?
A. String regex = "";
B. String regex = " ";
C. String regex = ".*".
D. String regex = "\\s"
E. String regex = "\\.\\s*";
F. String regex = "\\w[ \.] +";

Answer: E

Question 15
Given:
12. NumberFormat nf= NumberFormat.getInstance();
13. nf.setMaximumFractionDigits(4);
14. nf.setMinimumFractionDigits(2);
15. String a = nf.format(3.1415926);
16. String b = nf.format(2);
Which two are true about the result if the default locale is Locale.US? (Choose two.)
A. The value of b is 2.
B. The value of a is 3.14.
C. The value of b is 2.00.
D. The value of a is 3.141.
E. The value of a is 3.1415.
F. The value of a is 3.1416.
G. The value of b is 2.0000.

Answer: CF

Question 16
Given:
11. double input = 314159.26;
12. NumberFormat nf= NumberFormat.getInstance(Locale.ITALIAN);
13. String b;
14. //insert code here
Which code, inserted at line 14, sets the value of b to 3 14.159,26?
A. b = nf.parse( input);
B. b = nf.format( input);
C. b = nf.equals( input);
D. b = nf.parseObject( input);

Answer: B

Question 17
Given:
14. DateFormat df;
15. Date date = new Date();
16. //insert code here
17. String s = df.format( date);
Which two, inserted independently at line 16, allow the code to compile? (Choose two.)
A. df= new DateFormat();
B. df= Date.getFormatter();
C. df= date.getFormatter();
D. df= date.getDateFormatter();
E. df= Date.getDateFormatter();
F. df= DateFormat.getInstance();
G. df = DateFormat.getDateInstance();

Answer: FG

Question 18
Given:
12. Date date = new Date();
13. df.setLocale(Locale.ITALY);
14. String s = df.format(date);
The variable df is an object of type DateFormat that has been initialized in line 11. What is the result if this code is run on December 14, 2000?
A. The value of s is 14-dic-2004.
B. The value of s is Dec 14, 2000.
C. An exception is thrown at runtime.
D. Compilation fails because of an error in line 13.

Answer: D

Question 19
Given:
33. Date d = new Date(0);
34. String ds = "December 15, 2004";
35. // insert code here
36. try {
37. d = df.parse(ds);
38. }
39. catch(ParseException e) {
40. System.out.println("Unable to parse "+ ds);

41. }
42. // insert code here too
Which will create the appropriate DateFormat object and add a day to the Date object?
A. 35. DateFormat df= DateFormat.getDateFormat();
42. d.setTime( (60 * 60 * 24) + d.getTime());

B. 35. DateFormat df= DateFormat.getDateJnstance();
42. d.setTime( (1000 * 60 * 60 * 24) + d.getTime());

C. 35. DateFormat df= DateFormat.getDateFormat();
42. d.setLocalTime( (1000*60*60*24) + d.getLocalTime());

D. 35. DateFormat df= DateFormat.getDateJnstance();
42. d.setLocalTime( (60 * 60 * 24) + d.getLocalTime());

Answer: B

Question 20
Given a valid DateFormat object named df, and
16. Date d = new Date(0L);
17. String ds = "December 15, 2004";
18. // insert code here
What updates d's value with the date represented by ds?
A. 18. d = df.parse(ds);
B. 18. d = df.getDate(ds);
C. 18. try {
19. d = df.parse(ds);
20. } catch(ParseException e) { };
D. 18. try {
19. d = df.getDate(ds);
20. } catch(ParseException e) { };

Answer: C

Question 21
Given:
12. System.out.format("Pi is approximately %d.", Math.PI);
What is the result?
A. Compilation fails.
B. Pi is approximately 3.
C. Pi is approximately 3.141593.
D. An exception is thrown at runtime.

Answer: D

Question 22
Given:

* d is a valid, non-null Date object
* df is a valid, non-null DateFormat object set to the current locale

What outputs the current locales country name and the appropriate version of d's date?
A. Locale loc = Locale.getLocale();
System.out.println(loc.getDisplayCountry()
+ " "+ df.format(d));
B. Locale loc = Locale.getDefault();
System.out.println(loc.getDisplayCountry()
+ " " + df.format(d));
C. Locale bc = Locale.getLocale();
System.out.println(loc.getDisplayCountry()
+ " "+ df.setDateFormat(d));
D. Locale loc = Locale.getDefault();
System.out.println(loc.getDispbayCountry()
+ " "+ df.setDateFormat(d));

Answer: B

Question 23
Given:
12. String csv = "Sue,5,true,3";
13. Scanner scanner = new Scanner( csv);
14. scanner.useDelimiter(",");
15. int age = scanner.nextInt();
What is the result?
A. Compilation fails.
B. After line 15, the value of age is 5.
C. After line 15, the value of age is 3.
D. An exception is thrown at runtime.

Answer: D

## 二、拖拽题：

Question 1：

Given:

```
System.out.printf("Pi is approximately %f and E is approximately %b",
                  Math.PI, Math.E);
```

Place the values where they would appear in the output.

Pi is approximately [Place here]

and E is approximately [Place here]

**Values**

| | | | |
|---|---|---|---|
| 3 | 3.141593 | true | Math.PI |
| 2 | 2.718282 | false | Math.E |

Answer:

Pi is approximately 3.141593 and E is approximately true

Question 2：

Place the code fragments into position to produce the output:

```
true true false
```

**Code**

```
Scanner scanner = new Scanner( "One,5,true,3,true,6,7,false");
scanner.useDelimiter(",");

while (  Place here  ) {
  if (  Place here  ) {
    System.out.print(  Place here  + " ");
  } else  Place here  ;
}
```

**Code Fragments**

scanner.hasNextBoolean()

scanner.nextBoolean()

scanner.next()

scanner.hasNext()

Done

Answer:

```
while(scanner.hasNext()){
        if(scanner.hasNextBoolean()){
                System.out.println(scanner.nextBoolean() + " ");
        } else scanner.next();
}
```