四川大学期末考试试题（闭卷）

（2017~2018 学年第 2 学期）　　　　　　　　B 卷

课程号：**311141040**　　课程名称：**面向对象程序设计导论**　　任课教师：_____

适用专业年级：**软件工程 2017 级**　　　　　学号：_____　　姓名：_____

题　号	一(60%)	二(20%)	三(20%)
得　分			
卷面总分		阅卷时间	

注意事项：1. 请务必将本人所在学院、姓名、学号、任课教师姓名等信息准确填写在试题纸和添卷纸上；
　　　　　　2. 请将答案全部填写在本试题纸上；
　　　　　　3. 考试结束，请将试题纸、添卷纸和草稿纸一并交给监考老师。

评阅教师	得分

一、单项选择题（本大题共 30 小题，每小题 2 分，共 60 分）

提示：在每小题列出的四个备选项中只有一个是符合题目要求的，请将其代码填写在下表中。错选、多选或未选均无分。

1	2	3	4	5	6	7	8	9	10

11	12	13	14	15	16	17	18	19	20

21	22	23	24	25	26	27	28	29	30

1. Which of the following is true regarding Java applications?

    (A) They are run using a Java interpreter

    (B) They are compiled into machine code.

    (C) They are interpreted by a Web browser.

    (D) They are platform-dependent.

2. If a(n) _____ exception can occur in a method that does not have a catch block to handle that exception, then a throws clause that lists this exception must be part of the method _____.

(A) checked, body

(B) unchecked, header

(C) checked, header

(D) unchecked, body

3. Which of the following operators can be used to concatenate two String objects in Java?

(A) .

(B) +

(C) |

(D) &

4. When using a debugger to step through a program, if the current line contains a method call, which of the following executes the current line and then stops execution before executing the first line in the called method?

(A) step into

(B) resume

(C) step over

(D) step return

5. In Java, which of the following classes is (are) unchecked exceptions?
   I.   Error
   II.   Runtime
   III. IOException

(A) I and II only

(B) I and III only

(C) I, II, and III

(D) II only

6. After a breakpoint is hit, a debugger is typically used for which of the following tasks?
   I .Stepping through method calls, line by line
   II .Examining a stack trace
   III .Examining values of variables in the current method

(A) I and III only

(B) I, II, and III

(C) II only

(D) I and II only

7. Consider the following Java statement.
   private static java.io.PrintWriter stdOut = new java.io.PrintWriter(System.out, true);

At the end of execution of the Java statement, a call to stdOut.println() would result in which of the following?

Ⅰ.Output of a new line character

Ⅱ.Flushing of the output buffer

(A) Ⅰ and Ⅱ

(B) None

(C) Ⅰ only

(D) Ⅱ only

8. Which of the following follow(s) Sun's naming conventions for Java methods?
I. getValue();
II. GetValue();
III. GET_VALUE();

(A) I, II, and III

(B) II only

(C) I and II only

(D) I only

9. Which of the following lines follow(s) Sun's guidelines for documenting input parameters in a Javadoc comment?

Ⅰ. * @param foo the value to be tested

Ⅱ. * @param int foo

Ⅲ. * @param the value to be tested

(A) None

(B) Ⅱ only

(C) Ⅰ only

(D) Ⅲ only

10. Which of the following identifiers follow(s) Sun's naming conventions for Java constants?
Ⅰ.START_DATE
II. Serving_Size
III. AnnualFee

(A) Ⅰ and Ⅱ only

(B) Ⅰ and Ⅲ only

(C) Ⅰ only

(D) Ⅰ, Ⅱ, and Ⅲ

11. Which of the following can be represented in a UML class diagram?

   I .Class name

   II .Class attributes

   III .Class methods
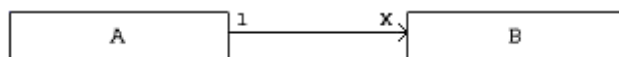

   (A) I and II only

   (B) II and III only

   (C) I, II, and III

   (D) I and III only

12. In object-oriented design, types of multiplicity for associations among classes include which of the following?

   I. One-to-one

   II. One-to-many

   III. Many-to-many

   (A) I and II only

   (B) I and III only

   (C) II and III only

   (D) I, II, and III

13. Consider the following UML class diagram.

   Which of the following may be substituted for X in the above diagram to correctly represent a multiplicity between A and B ?

   I.1

   II. 0..*

   III. 1..*

   (A) III only

   (B) II and III only

   (C) I and II only

   (D) I, II, and III

14. In a UML diagram, a specialization/generalization relationship is characterized by a line

between two classes and a _____ next to the _____ class.

(A) triangle, generalization

(B) diamond, specialization

(C) triangle, specialization

(D) diamond, generalization

15. Which of the following Java method declarations does not require that the method return a value?

(A) private static int myMethod();

(B) public void myMethod();

(C) private int myMethod();

(D) public String myMethod();

16. Which of the following statements about Java is (are) true?

I .One class can define two methods with the same signature.

II .If class B extends class A and overrides method m, then the argument names in the definition of method m in class B must be identical to those in class A.

(A) I only

(B) I and II

(C) None

(D) II only

17. In Java, class variables must be declared with which of the following modifiers?

(A) public

(B) final

(C) static

(D) class

18. Consider the following Java program segment.

```
class Foo   {
    private int x = 1;
      public Foo() {x = 2;}
    public Foo(int xVal) {x = xVal;}
  }
  Foo f = new Foo();
```

What will be the value of f at the end of execution of the segment?

(A) null

(B) 2

(C) 1

(D) 0

19. Which of the following statements is (are) true about the class Vector in Java?

I .An object that is retrieved from a Vector will automatically be cast and returned as its original class.

II .All elements in a Vector can be simultaneously cast to a different class by casting the Vector object to that class.

(A) I and II

(B) I only

(C) II only

(D) None

20. What will be output when the following Java program segment is executed?
```
Vector animals = new Vector();
animals.add("cat");
animals.add("dog");
animals.add("dog");
for (int i = 0; i < animals.size(); ++i) {
    if (((String) animals.get(i)).equals("dog")) {
        animals.removeElementAt(i);
    }
}
System.out.println(animals.size());
```

(A) 0

(B) 1

(C) 2

(D) 3

21. In Java, an individual component of an array can be accessed using an index and which of the following operators?

(A) ( )

(B) .

(C) [ ]

(D) instanceof

22. What kinds of abstract classes, if any, can be instantiated?

(A) Those that contain only abstract methods

(B) Those that contain no abstract methods

(C) Those that contain at least one method that is not abstract

(D) None

23. In Java, for a subclass of an abstract class not to be abstract, the subclass must override which of the following?

Ⅰ.All inherited abstract methods

Ⅱ.All inherited methods that are not abstract

(A) Ⅰ only

(B) Ⅱ only

(C) None

(D) Ⅰ and Ⅱ

24. A reference variable r in Java can hold a reference to which of the following?

Ⅰ.An object having the same declared type as r

Ⅱ.An object of any subclass of the declared type of r

Ⅲ.An object of any superclass of the declared type of r

(A) Ⅰ, Ⅱ, and Ⅲ only

(B) Ⅰ and Ⅱ only

(C) Ⅰ and Ⅲ only

(D) Ⅰ only

25. A singleton class typically refers to its instance via a _____ variable.
   (A) public instance
   (B) private instance
   (C) private static
   (D) public static

26. In singleton classes, the constructor is _____ to ensure that instantiation is controlled through a(n) _____ method.
   (A) private, instance
   (B) omitted, static
   (C) private, static
   (D) omitted, instance

27. Which of the following is (are) true regarding file input in Java?

　　Ⅰ.FileReader and BufferedReader are defined in the package java.lang.

　　Ⅱ.A BufferedReader object can receive data from a FileReader object.

　　Ⅲ.A BufferedReader object can read entire lines of data.

　　(A) Ⅱ and Ⅲ only

　　(B) Ⅰ, Ⅱ, and Ⅲ

　　(C) Ⅰ and Ⅱ only

　　(D) Ⅰ and Ⅲ only

28. Which of the following statements about class variables in Java is not true?

　　(A) Class variables require the modifier static in the declarations.

　　(B) All objects have their own copy of the class variable defined in the instantiated class.

　　(C) Non-static methods in a class can access the class variable defined in the same class.

　　(D) Class variables do not need the reference to the object of the instantiated class to access them.

29. In Java, all methods in an interface must be _____ and _____.

　　(A) private, abstract

　　(B) public, static

　　(C) public, abstract

　　(D) static, private

30. What is the name of the JDK program that processes Javadoc comments?

　　(A) Java

　　(B) Javadoc

　　(C) Javacom

　　(D) Javac

评阅教师	得分

二、编程题（本大题共 2 小题，每小题 10 分，共 20 分）。

提示：每小题给出了一个程序设计要求，请按照要求写出源程序代码，如果源程序代码中出现语法错误或逻辑错误，则酌情扣分。

1. 〔共 10 分〕

　　Write the program to obtain 10 integers from the keyboard, and output the maximum and minimum values.The exception handling mechanism is required to throw an exception when the input is not an integer.

The output format is as follows: Max=?

　　　　　　　　　　　　　Min=?

（write your code here）

二、编程题（本大题共 2 小题，每小题 10 分，共 20 分）。

2. 〔共 10 分〕

Create a ArrayList collection that can only hold the String object named names. Add 5 string objects in the set in order: "Zhang three", "Li four", "Wang five", "horse six", "Zhao Qi". Traverse the ArrayList to print the position and content of each element in the set, and then print the size of the set. Then, delete the third elements in the collection, print the contents of the third elements in the deleted collection, and print the size of the ArrayList again.

（write your code here）

评阅教师	得分

三、UML 设计题（本大题共 **1** 小题，共 **20** 分）。

　　Assuming that the student's scores of the 6 degree courses could determine whether they can get a degree. For undergraduates, If the average score of the six courses exceeds 60, it means passing. And for graduate students, you need an average of more than 80 minutes to pass. In accordance with the above requirements, please complete the following Java class design:

(1) Design a base class Student to describe the common characteristics of the student

(2) Design a Undergraduate class that describes the Undergraduate class, which inherits and extends the Student class

(3) Design a graduate class that describes the graduate class, which inherits and extends the Student class

(4) Design a test class StudentDemo, respectively, to create undergraduate and graduate students of these two categories of objects, and output relevant information.

　　Draw a class diagram according to the description above.

三、UML 设计题（本大题共 **1** 小题，共 **20** 分）。

注：试题字迹务必清晰，书写工整。　　　本题 11 页，本页为第 11 页　　　教务处试题编号：311-04