

1. A Java exception is an instance of _____.

- a. RuntimeException b. Exception c. Error d. Throwable

2. An instance of _____ describes programming errors, such as bad casting, accessing an out-of-bounds array, and numeric errors.

- a. RuntimeException b. Exception c. Error d. Throwable

3. What exception type does the following program throw?

```
public class Test {    public static void  
main(String[] args) {  
    System.out.println(1 / 0);  
    }  
}
```

- a. ArithmeticException b. ArrayIndexOutOfBoundsException
c. StringIndexOutOfBoundsException d. ClassCastException

4. A method must declare to throw _____.

- a. unchecked exceptions b. checked exceptions c. Error d. RuntimeException

5. Which of the following statements are true?

- a. You use the keyword throws to declare exceptions in the method heading.
b. A method may declare to throw multiple exceptions.
c. To throw an exception, use the key word throw.
d. If a checked exception occurs in a method, it must be either caught or declared to be thrown from the method.

6. ArrayList<String> and ArrayList<Integer> are two types. Does the JVM load two classes ArrayList<String> and ArrayList<Integer>?

- a. Yes b. No

7. Which of the following is not an advantage of Java exception handling?
- a. Java separates exception handling from normal processing tasks.
 - b. Exception handling improves performance.
 - c. wException handling makes it possible for the caller's caller to handle the exception.
 - d. Exception handling simplifies programming because the error-reporting and error-handling code can be placed at the catch block.

8. Which of the following statements is correct?

- a. Generics can help detect type errors at compile time, thus make programs more robust.
- b. Generics can make programs easy to read.
- c. Generics can avoid cumbersome castings.
- d. Generics can make programs run faster.

9. All the concrete classes in the Java Collections Framework implement _____.

- a. the Cloneable interface
- b. the Serializable interfaces
- c. the Comparable interface
- d. the Comparator interface

10. For an instance of Collection, you can obtain its iterator using _____.

- a. c.getIterator()
- b. c.iterator()
- c. c.iterators()
- d. c.iterable()

11. You can use a for-each loop to traverse all elements in a container object that implements _____.

- a. Iterator
- b. Collection
- c. Iterable
- d. ArrayList

12. Which of the following are true?

- a. You can insert an element anywhere in an arraylist.
- b. You can insert an element anywhere in a linked list.
- c. You can use a linked list to improve efficiency for adding/removing elements at the beginning of a list.
- d. You should use an array list if your application does not require adding and removing elements at the beginning of a list.

13. Suppose ArrayList x contains three strings [Beijing, Singapore, Tokyo]. Which of the following methods will cause runtime errors?

- a. x.get(2) b. x.set(3, "New York") c. x.get(3) d. x.remove(3)

14. Suppose list list1 is [1, 2, 5] and list list2 is [2, 3, 6]. After list1.addAll(list2), list1 is _____.

- a. [1, 2, 2, 3, 5, 6] b. [1, 2, 3, 5, 6] c. [1, 5] d. [2]

15. Suppose a list contains {"red", "green", "red", "green"}. What is the list after the following code?

list.remove("red");

- a. {"red", "green", "red", "green"} b. {"green", "red", "green"}
c. {"green", "green"} d. {"red", "green", "green"}

16. Which of the following is correct to sort the elements in a list lst?

- a. lst.sort() b. Collections.sort(lst)
c. Arrays.sort(lst) d. new LinkedList<String>(new String[]{"red", "green", "blue"})

17. Which data type should you use if you want to store duplicate elements and be able to insert or delete elements anywhere efficiently.

- a. ArrayList b. LinkedList c. Vector d. Set

18. java.util.Vector is a subtype of _____.

- a. java.util.ArrayList b. java.util.LinkedList
c. java.util.AbstractList d. java.util.Vector

19. The _____ method in the Queue interface retrieves and removes the head of this queue, or null if this queue is empty.

- a. poll() b. remove() c. peek() d. element()

20. Which of the following methods is defined in the Locale class?

a. `getLanguage()` b. `getCountry()` c. `getVariant()` d. `getCountryVariant()`

21. Which of the following are in the `java.text` package?

a. `DateFormatSymbols` b. `DateFormat` c. `SimpleDateFormat` d. `Date`

22. How do you create a locale for the United States?

a. `new Locale("en", "US");` b. `new Locale("US", "en");` c. `Locale.US;` d. `Locale.getLocale("en", "US")`

23. Which of the following methods is correct to obtain the available locales in the classes `Calendar`, `Collator`, `DateFormat`, and `NumberFormat`?

a. `getLocales()` b. `getAllLocales()` c. `getAvailableLocales()` d. `availableLocales()`

24. Which of the following code is correct to create an instance for formatting numbers?

- a. `NumberFormat.getInstance();`
- b. `NumberFormat.getNumberInstance(locale);`
- c. `INumberFormat.getInstance(locale);`
- d. `NumberFormat.getNumberFormatInstance(locale);`

25. A resource bundle is _____

- a. a Java source code that contains image, audio, and text files.
- b. a Java class file or a text file that provides locale-specific information.
- c. an image file.
- d. an audio file.