

الإسم ..... الرقم .....

أجب عن جميع الأسئلة  
\*ورقة الإمتحان تشتمل على 7 صفحات\*

**Question 1 :**

**Draw a circle around the correct answer**

**1. Using a bubble sort involves \_\_\_\_\_.**

- a. comparing parallel arrays
- b. comparing each array element to the average
- c. comparing each array element to the adjacent array element
- d. swapping every array element with its adjacent element

**2. When you use a bubble sort to perform an ascending sort, after the first pass through an array the largest value is \_\_\_\_.**

- a. at the beginning of the list
- b. in the middle of the list
- c. at the end of the list
- d. It is impossible to determine the answer without more information.

**3. When array elements are objects, you usually want to sort based on a particular \_\_\_\_\_ of the object.**

- a. field
- b. method
- c. name
- d. type

**4. The following defines a \_\_\_\_\_ array:**

`int[][]nums = {{1, 2}, {3, 4}, {5, 6}};`

- a. one-dimensional
- b. two-dimensional
- c. three-dimensional
- d. six-dimensional

**5. A \_\_\_\_ array has rows of different lengths.**

- a. ragged
- b. jagged
- c. haggard
- d. tattered

**6. Which of the following is a requirement when you use a binary search method with an array?**

- a. The array must be numeric.
- b. The array must have been sorted in ascending order.
- c. The array must have at least three elements.
- d. none of the above

**7. The chief advantage to using the ArrayList class instead of the Arrays class is that an ArrayList \_\_\_\_.**

- a. can be much larger
- b. is easier to search
- c. is dynamically resizable
- d. can be used as an argument to a static method

**8. Employing inheritance reduces errors because \_\_\_\_\_.**

- a. the new classes have access to fewer data fields
- b. the new classes have access to fewer methods
- c. you can copy methods that you already created
- d. many of the methods you need have already been used and tested

9. A base class can also be called a \_\_\_\_\_.
- a. child class
  - b. subclass
  - c. derived class
  - d. superclass
10. The Java keyword that creates inheritance is \_\_\_\_\_.
- a. static
  - b. enlarge
  - c. extends
  - d. inherits
11. When a subclass method has the same name and argument types as a superclass method, the subclass method \_\_\_\_\_ the superclass method.
- a. overrides
  - b. overuses
  - c. overloads
  - d. overcompensates
12. You use a \_\_\_\_\_ method access specifier when you create methods for which you want to prevent overriding in extended classes.
- a. public
  - b. protected
  - c. final
  - d. subclass
13. Parent classes are \_\_\_\_\_ than their child classes.
- a. less specific
  - b. more specific
  - c. easier to understand
  - d. more cryptic
14. Abstract classes differ from other classes in that you \_\_\_\_\_.
- a. must not code any methods within them
  - b. must instantiate objects from them
  - c. cannot instantiate objects from them
  - d. cannot have data fields within them
15. Abstract classes can contain \_\_\_\_\_.
- a. abstract methods
  - b. nonabstract methods
  - c. both of the above
  - d. none of the above
16. In object-oriented programming terminology, an unexpected or error condition is a(n) \_\_\_\_\_.
- a. anomaly
  - b. aberration
  - c. deviation
  - d. exception
17. Which of the following statements is true?
- a. Exceptions are more serious than Errors.
  - b. Errors are more serious than Exceptions.
  - c. Errors and Exceptions are equally serious.
  - d. Exceptions and Errors are the same thing.
18. The segment of code that handles or takes appropriate action following an exception is a \_\_\_\_\_ block.
- a. try
  - b. catch
  - c. throws
  - d. handles
19. When a try block does not generate an Exception and you have included multiple catch blocks, \_\_\_\_\_.
- a. they all execute
  - b. only the first one executes
  - c. only the first matching one executes
  - d. no catch blocks execute

20. The memory location where the computer stores the list of method locations to which the system must return is known as the \_\_\_\_\_.

- a. registry
- b. call stack
- c. chronicle
- d. archive

**Question 2 :**

**Fill in the blanks with the correct term or word**

1. When a two-dimensional array has rows of different lengths, it is a ..... **array** because you can picture the ends of each row as uneven.
2. The general term for arrays with more than one dimension is ..... **arrays.**
3. Java provides an ..... , which contains many useful methods for manipulating arrays.
4. A programmer created data type with a fixed set of values is a ..... .
5. The three types of methods that you cannot override in a subclass are: ..... **methods,** ..... **methods and** ..... **within final classes.**
6. A class such as Employee that you create only to extend from is not a concrete class; it is an ..... class.
7. The code within a ..... **block** executes regardless of whether the preceding try block identifies an Exception.
8. When you use inheritance, you ..... time and ..... errors.







**Question 4 :**

**Write True ( T) or False( F) for each of the following statements.**

1. (.....) The Error class represents less serious errors from which your program usually cannot recover.
2. (.....) The Exception class comprises more serious errors that represent unusual conditions that arise while a program is running.
3. (.....) Java’s creators could predict every condition that might be an Exception in your applications.
4. (.....) Most organizations have specific rules for exceptional data
5. (.....) To create your own throwable Exception, you must extend a subclass of Throwable.
6. (.....) An assertion is a Java language feature that can help you detect such syntax errors and debug a program.
7. (.....) The Boolean expression in the assert statement should always be true if the program is working correctly.
8. (.....) The default constructor creates an ArrayList with a capacity of 100 items.
9. (.....) Inheritance is a one-way proposition; a child inherits from a parent, not the other way around.
10. (.....) Object-oriented programmers use the term polymorphism when discussing any operation that has only one meanings.

**Question 5 :**

**Define the following terminologies**

1. Unified Modeling Language (UML)

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2. Two-dimensional arrays

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3. Information hiding

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4. Virtual classes

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5. Overriding Superclass Methods

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