

#### Section 4 – True / False (125)

1. Java is a platform-dependent language.

Answer: False

2. The main method in Java must always be public static void main(String[] args).

Answer: True

3. Java source code is compiled into machine code directly.

Answer: False

4. In Java, char is a 16-bit Unicode character.

Answer: True

5. The default value of a local variable is null.

Answer: False

6. Java supports multiple inheritance using classes.

Answer: False

7. The extends keyword is used to implement an interface.

Answer: False

8. Java arrays are resizable after creation.

Answer: False

9. Strings in Java are immutable.

Answer: True

10. The break statement is used to exit from a loop or switch statement.

Answer: True

11. The Scanner class is in the java.lang package.

Answer: False

12. The == operator compares the content of two strings.

Answer: False

13. The equals() method compares string values.

Answer: True

14. Java uses garbage collection for automatic memory management.

Answer: True

15. float has a higher precision than double.

Answer: False

16. The super keyword is used to call the superclass constructor.

Answer: True

17. final variables can be reassigned after initialization.

Answer: False

18. The do-while loop checks its condition at the beginning of each iteration.

Answer: False

19. for-each loops can iterate over arrays and collections.

Answer: True

20. The package statement must be the first statement in a Java source file.

Answer: True

21. Java is case-sensitive.

Answer: True

22. The default value of a boolean variable is true.

Answer: False

23. A method can return more than one value directly.

Answer: False

24. Wrapper classes in Java allow primitive types to be used as objects.

Answer: True

25. The catch block must always be followed by a finally block.

Answer: False

26. private members are accessible in subclasses.

Answer: False

27. Static methods belong to objects, not classes.

Answer: False

28. The import statement is used to include external packages in Java.

Answer: True

29. All exceptions in Java are checked exceptions.

Answer: False

30. The modulus operator % gives the remainder of a division.

Answer: True

31. Java supports operator overloading for arithmetic operators.

Answer: False

32. The this keyword refers to the current object.

Answer: True

33. The size of an int in Java is platform-dependent.

Answer: False

34. Java supports unsigned integer types.

Answer: False

35. A class can have multiple constructors.

Answer: True

36. Local variables are stored in the heap memory.

Answer: False

37. The instanceof operator checks whether an object is an instance of a class.

Answer: True

38. Java automatically imports java.util.\* in every program.

Answer: False

39. The continue statement skips the rest of the loop iteration.

Answer: True

40. Interfaces in Java can have method implementations.

Answer: True (since Java 8, using default methods)

41. null can be assigned to any primitive type.

Answer: False

42. An abstract class can be instantiated directly.

Answer: False

43. Method overloading is determined at compile time.

Answer: True

44. Method overriding is determined at runtime.

Answer: True

45. The enum keyword is used to declare enumerations.

Answer: True

46. The finalize() method is guaranteed to be called before garbage collection.

Answer: False

47. The charAt() method returns a string.

Answer: False

48. The substring() method in String is inclusive of the end index.

Answer: False

49. An interface can extend another interface.

Answer: True

50. A switch statement can use strings as case values.

Answer: True (since Java 7)

51. Java supports destructors like C++.

Answer: False

52. The max() method in Math returns the smaller of two numbers.

Answer: False

53. static variables are initialized once per class.

Answer: True

54. The public access modifier allows members to be accessed from anywhere.

Answer: True

55. A class can extend multiple classes in Java.

Answer: False

56. The hashCode() method returns an integer representation of the object.

Answer: True

57. The compareTo() method returns zero if two strings are equal.

Answer: True

58. The toLowerCase() method in String modifies the original string.

Answer: False

59. The default constructor is automatically provided if no constructors are defined.

Answer: True

60. The protected access modifier makes members accessible only within the same package.

Answer: False (also accessible in subclasses)

61. The java.lang package contains the String class.

Answer: True

62. The ArrayList class is in the java.util package.

Answer: True

63. Arrays in Java can store primitive and object types.

Answer: True

64. The length of an array is fixed once it is created.

Answer: True

65. The super keyword can be used to call superclass methods.

Answer: True

66. A constructor can have a return type.

Answer: False

67. The volatile keyword ensures visibility of changes to variables across threads.

Answer: True

68. The synchronized keyword is used to make code thread-safe.

Answer: True

69. A final method can be overridden.

Answer: False

70. Java provides direct memory management to programmers.

Answer: False

71. An array index in Java starts at 1.

Answer: False

72. The length property is used to get the size of an array.

Answer: True

73. Java follows the pass-by-value mechanism for method arguments.

Answer: True

74. The parseInt() method belongs to the Integer class.

Answer: True

75. The trim() method removes all spaces in a string.



Answer: False (removes only leading and trailing spaces)

76. The `replace()` method in `String` modifies the original string.

Answer: False

77. The `switch` statement can work with `enum` values.

Answer: True

78. The `default` keyword in `switch` is mandatory.

Answer: False

79. Java supports automatic type conversion when widening types.

Answer: True

80. The narrowing conversion happens automatically.

Answer: False

81. The `void` keyword means a method returns no value.

Answer: True

82. The `System.out.println()` method is used to read input.

Answer: False

83. The `Scanner` class can be used for reading integers.

Answer: True

84. Java allows methods to have the same name but different parameter lists.

Answer: True

85. Overridden methods must have the same return type or a covariant return type.

Answer: True

86. The new keyword is used for creating arrays.

Answer: True

87. The finally block always executes regardless of exceptions.

Answer: True

88. An abstract method must have a body.

Answer: False

89. A class declared as final cannot be instantiated.

Answer: False (it can be instantiated but not subclassed)

90. The equalsIgnoreCase() method considers case when comparing strings.

Answer: False

91. The Math.abs() method returns the absolute value.

Answer: True

92. The this() call must be the first statement in a constructor.

Answer: True

93. Constructors can be overloaded.

Answer: True

94. Java automatically performs memory deallocation for unused objects.

Answer: True

95. An interface can have static methods.

Answer: True

96. Java supports labeled loops.

Answer: True

97. The continue statement can be used with labels.

Answer: True

98. The char data type can store ASCII characters only.

Answer: False

99. The instanceof operator returns a boolean value.

Answer: True

100. The Math.sqrt() method returns a float value.

Answer: False (returns double)

101. The max() method in Math returns the larger value.

Answer: True

102. The min() method in Math returns the smaller value.

Answer: True

103. Java supports multiple catch blocks for a single try block.

Answer: True

104. The throw keyword is used to declare an exception.

Answer: False (throws is used to declare, throw to throw)

105. The long data type is 64 bits.

Answer: True

106. A static method can access instance variables directly.

Answer: False

107. A constructor can be private.

Answer: True

108. The default access modifier means package-private access.

Answer: True

109. The equals() method in Object class compares reference equality.

Answer: True

110. The java.io package is used for input/output operations.

Answer: True

111. The java.net package contains classes for networking.

Answer: True

112. The length() method is used to get the size of an array.

Answer: False (arrays use length property, not method)

113. The length() method is used to get the number of characters in a String.

Answer: True

114. Java supports comments in the form // and /\* \*/.

Answer: True

115. The && operator represents logical AND.

Answer: True

116. The || operator represents logical OR.

Answer: True

117. The ! operator represents logical NOT.

Answer: True

118. Java methods can have a variable number of arguments.

Answer: True (using varargs)

119. The charAt() method index starts at 1.

Answer: False

120. The StringBuffer class is immutable.

Answer: False

121. The StringBuilder class is mutable.

Answer: True

122. Both StringBuffer and StringBuilder are thread-safe.

Answer: False (StringBuffer is thread-safe, StringBuilder is not)

123. The indexOf() method returns -1 if the substring is not found.

Answer: True

124. The default numeric type for floating-point literals in Java is float.

Answer: False (it's double)

125. Java supports automatic widening conversion for compatible types.

Answer: True