1. What is the default value of a boolean variable in Java?
   1. true
   2. false
   3. 0
   4. null
2. Which of the following is not a primitive data type in Java?
   1. int
   2. float
   3. String
   4. char
3. Which data type is used to store a character in Java?
   1. String
   2. char
   3. Character
   4. byte
4. What is the size of an int data type in Java?
   1. 8 bits
   2. 16 bits
   3. 32 bits
   4. 64 bits
5. Which data type can hold the largest range of values?
   1. byte
   2. short
   3. int
   4. long
6. What is the default value of a char variable in Java?
   1. 0
   2. null
   3. ''
   4. '\u0000'
7. Which of the following declarations is correct for a float variable?
   1. float f = 5.5;
   2. float f = 5.5f;
   3. float f = (float)5.5;
   4. Both B and C
8. How many bytes does a double data type occupy in Java?
   1. 4
   2. 8
   3. 16
   4. 32
9. What will be the output of: int a=10; int b=20; System.out.println(a + b);
   1. 10 B) 20 C) 30 D) null
10. Which of the following is the correct way to declare a variable?
    1. int 1number; B) int number-1; C) int number1; D) int number 1;
11. What is the value of byte variable b after: byte b=10; b = b + 5;
    1. 10 B) 15 C) Compilation error D) null
12. Which is a valid declaration of an int array?
    1. int arr[]; B) int arr = new int[5]; C) int arr[5]; D) Both A and B
13. What does System.out.println(c + 1) print if c='A'?
    1. A B) B C) 66 D) 65
14. What is the range of short data type?
    1. -128 to 127 B) -32768 to 32767 C) -2^31 to 2^31-1 D) 0 to 255
15. Which keyword declares a constant variable?
    1. static B) const C) final D) immutable
16. What will be the result of 5 / 2 in integer arithmetic?
    1. 2 B) 2.5 C) 2.0 D) 3
17. Which data types can hold decimal numbers?
    1. decimal B) double C) float D) Both B and C
18. What is the entry point method of a Java application?
    1. start() B) run() C) main() D) init()
19. Which cannot be used as a variable name?
    1. identifier B) keyword C) &none D) underscore
20. How do you comment a block in Java?
    1. //… B) !--…-- C) /\*…\*/ D) …
21. Byte arithmetic automatically promotes variables to which type?
    1. long B) short C) int D) long
22. What does the 'this' keyword refer to?
    1. Local variable B) Current instance C) Class D) Parent constructor call
23. What does the 'super' keyword refer to?
    1. Method call B) 'this' reference C) Superclass members D) None
24. Which class is immutable in Java?
    1. String B) StringBuffer C) StringBuilder D) StringJoiner
25. Which operator concatenates strings?

A) + B) && C) || D) ++

1. What collection stores unique unordered elements?
   1. ArrayList B) HashMap C) HashSet D) LinkedList
2. What does '==' compare on objects?
   1. content B) reference C) hash D) case
3. Which interface is used for natural ordering?
   1. Cloneable B) Comparable C) Iterable D) Serializable
4. What is an abstract class used for?
   1. Cannot instantiate B) Template for subclasses C) Multiple inheritance D) Both A & B
5. Which keyword defines an abstract class?
   1. final B) abstract C) virtual D) static
6. What kind of relationship does inheritance represent?
   1. aggregation B) composition C) is-a D) has-a
7. What is polymorphism?
   1. Same form B) Many forms C) Single behavior D) Static binding
8. What is compile-time polymorphism?
   1. method overloading B) method overriding C) inheritance D) interface
9. What is runtime polymorphism?
   1. overload B) override C) inheritance D) template
10. Can static methods be overridden?
    1. Yes B) No C) Partial D) Depends
11. Which keyword defines an interface?
    1. interface B) class C) implements D) extends
12. Are default methods allowed in Java 8 interfaces?
    1. yes B) no C) maybe D) not sure
13. Which keyword defines an enum type?
    1. enum B) extends C) implements D) final
14. Enum implicitly extends which class?
    1. Enum B) Object C) interface D) Serializable
15. What exception is thrown on illegal monitor misuse?
    1. IllegalMonitorException B) IllegalMonitorStateException C) MonitorException D) SynchronizationException
16. Which keyword is used to catch exceptions?
    1. try B) catch C) final D) throw
17. Which block executes regardless of exception?
    1. catch B) try C) finally D) none
18. What exception arises dividing by zero with int?
    1. NullPointerException B) ArithmeticException C) IndexOutOfBoundsException D) Exception
19. Which is a checked exception?
    1. NullPointerException B) ArithmeticException C) FileNotFoundException D) ArrayIndexOutOfBoundsException
20. Which method converts an object to string?
    1. toString() B) toStr() C) string() D) display()
21. What is boxing in Java?
    1. Primitive to object B) Object to primitive C) String to int D) int to String
22. Wrapper class for 'int'?
    1. Integer B) Int C) Number D) String
23. Purpose of garbage collection?
    1. Manual delete B) Free memory of unused objects C) Optimize code D) Backup data
24. What does 'volatile' keyword do?
    1. Immutable B) No change C) Thread visibility D) Thread locking
25. What does 'transient' keyword do?
    1. Skip serialization B) None C) const D) var

Answer Sheet from:- Guduru Nasir Hussain