1. What will be the output of the following code?

```java
Integer a = 100;
int b = a + 10;
System.out.println(b);
```

A) 110
B) Compilation error
C) Runtime error
D) NullPointerException

2. What will be the output of the following code?

```java
Integer x = 127;
Integer y = 127;
System.out.println(x == y);
```

A) true
B) false
C) Compilation error
D) Runtime error

3. What will be the output of this code?

```java
Integer x = 128;
Integer y = 128;
System.out.println(x == y);
```

A) true
B) false
C) Compilation error
D) Runtime error

4. What is the default value of an `Integer` instance variable in a class?
A) 0
B) null
C) Garbage value
D) Compilation error

5. What happens if you execute the following code?

```java
Integer x = null;
int y = x;
System.out.println(y);
```

A) 0
B) Compilation error
C) Runtime error
D) null

6. What will be the output of the following code?

```java
String str = "200";
Integer num = Integer.valueOf(str);
System.out.println(num);
```

A) 200
B) "200"
C) Compilation error
D) Runtime error

7. What will be the output of the following code?

```
Integer a = new Integer(50);
Integer b = new Integer(50);
System.out.println(a == b);
```

A) true
B) false
C) Compilation error
D) Runtime error

8. What will be the output of this code?

```
Double d = 10.5;
double val = d;
System.out.println(val);
```

A) 10.5
B) Compilation error
C) 0.0
D) Runtime error

9. What will be the output of the following code?

```
Float f = 12.5f;
Integer i = f.intValue();
System.out.println(i);
```

A) 12
B) 12.5
C) Compilation error
D) Runtime error

10. What will be the output of the following code?

```
Character ch = 'A';
System.out.println(Character.isLowerCase(ch));
```

A) true
B) false
C) Compilation error
D) Runtime error

11. What will be the output of the following code?

```
Boolean b1 = new Boolean("True");
Boolean b2 = new Boolean("true");
System.out.println(b1 == b2);
```

A) true
B) false
C) Compilation error
D) Runtime error

12. What will be the output of the following code?

```
Boolean b1 = Boolean.valueOf("true");
Boolean b2 = Boolean.TRUE;
System.out.println(b1 == b2);
```

A) true
B) false
C) Compilation error
D) Runtime error

13. What will be the output of the following code?

```
Short s1 = 100;
Short s2 = 100;
System.out.println(s1 == s2);
```

A) true
B) false
C) Compilation error
D) Runtime error

14. What will be the output of the following code?

```
String str = "45.6";
Double d = Double.parseDouble(str);
System.out.println(d);
```

A) 45.6
B) "45.6"
C) Compilation error
D) Runtime error

15. What happens if you execute the following code?

```
Byte b = 128;
System.out.println(b);
```

A) 128
B) Compilation error
C) -128
D) Runtime error

16. What will be the output of the following code?

```
Float f = 10.5f;
Double d = 10.5;
System.out.println(f.equals(d));
```

A) true
B) false
C) Compilation error
D) Runtime error

17. What will be the output of the following code?

```java
Character ch = '5';
System.out.println(Character.isDigit(ch));
```

A) true
B) false
C) Compilation error
D) Runtime error

18. Which of the following assignments is valid?

```java
Long l = 100;
```

A) Valid
B) Compilation error
C) Runtime error
D) Invalid due to type mismatch

19. What will be the output of the following code?

```java
Boolean b = new Boolean("TrUe");
System.out.println(b);
```

A) true
B) false
C) Compilation error
D) Runtime error

20. What will be the output of the following code?

```java
Integer i = 100;
Double d = i * 2.0;
System.out.println(d);
```

A) 200.0
B) Compilation error
C) 200
D) Runtime error

21. What will be the output of the following code?

```java
Character ch = 'b';
System.out.println(Character.toUpperCase(ch));
```

A) b
B) B
C) Compilation error
D) Runtime error

22. What will be the output of the following code?

```
Float f1 = 10.5f;
Float f2 = 10.5f;
System.out.println(f1 == f2);
```

A) true
B) false
C) Compilation error
D) Runtime error

23. What happens if you execute the following code?

```
Integer x = null;
int y = x;
System.out.println(y);
```

A) 0
B) Compilation error
C) Runtime error
D) null

24. What will be the output of the following code?

```
Double d = 20.5;
Integer i = d.intValue();
System.out.println(i);
```

A) 20
B) 20.5
C) Compilation error
D) Runtime error

25. What will be the output of the following code?

```
Character c = 'Z';
System.out.println(Character.isUpperCase(c));
```

A) true
B) false
C) Compilation error
D) Runtime error

26. What will be the output of the following code?

```
Integer i = 300;
Integer j = 300;
System.out.println(i.equals(j));
```

A) true
B) false
C) Compilation error
D) Runtime error

27. What will be the output of the following code?

```
Byte b = new Byte("50");
System.out.println(b);
```

A) 50
B) Compilation error
C) Runtime error
D) -50

28. What is the size of `Double` in Java?
    A) 4 bytes
    B) 8 bytes
    C) 16 bytes
    D) Platform-dependent

29. What will be the output of `Boolean.valueOf("False")` ? A) true
    B) false
    C) Compilation error
    D) Runtime error

30. What is the maximum value a `Short` can store?
    A) 32,767
    B) 65,535
    C) 16,383
    D) 131,071