

Day 2 ASSESSMENT

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1. Which of the following is a comparison operator in Java?

- 1. +=
- 2. ==
- 3. &&
- 4. %

2. What is the result of $5 + 3 * 2 > 10 \ \&\& \ !(7 == 7)$?

- 1. true
- 2. false
- 3. Error
- 4. Cannot be evaluated

3. Which operator is used to check if two values are not equal in Java?

- 1. !=
- 2. !=
- 3. <
- 4. ==

4. What will `true || false && false` evaluate to?

- 1. true
- 2. false
- 3. null
- 4. Error

5. Which of the following expressions is logically incorrect?

- 1. `x == 10`
- 2. `x = 5` in an if condition
- 3. `x != y`
- 4. `!(x > y)`

6. In Java, what is the result of the expression `!(false || true)`?

- 1. true
- 2. false
- 3. Error
- 4. 0

7. What is the precedence order among these: `&&`, `==`, `+`?

- 1. `+` `>` `==` `&&`
- 2. `&&` `>` `==` `+`
- 3. `==` `>` `&&` `+`
- 4. `+` `>` `&&` `>` `==`

8. What's wrong here?

```
if(x = 10){  
    System.out.println("Ten");  
}
```

- 1. Missing semicolon
- 2. `=` should be `==`
- 3. No braces used
- 4. `x` should be declared

9. Which of these evaluates to true only if both expressions are true?

- 1. `||`
- 2. `==`
- 3. `&&`
- 4. `!`

10. Guess the Output:

```
int a = 10, b = 20;
```

```
System.out.println(a > 5 && b < 15);
```

- 1. true
- 2. false
- 3. Error
- 4. null

11. What is the output of the following code?

```
int num = 0;  
if(num > 0) System.out.println  
("Positive"); else if(num < 0)  
    System.out.println("Negative");  
else System.out.println("Zero");
```

- 1. Positive
- 2. Negative
- 3. Zero
- 4. Error

12. In which situation would you prefer if-else over switch?

- 1. When comparing a variable against constant values
- 2. When performing range-based conditions
- 3. When matching string literals
- 4. When dealing with enums

13. What is the syntax for the ternary operator in Java?

- ☒ 1. condition : true ? false
- 2. condition ? valueIfTrue : valueIfFalse
- 3. if ? then : else
- 4. if (condition) { value1 } else { value2 }

14. Guess the Output:

```
int age = 17;  
System.out.println(age >= 18 ?  
"Eligible" : "Not Eligible");
```

- 1. Eligible
- ☒ 2. Not Eligible
- 3. Error
- 4. null

15. Which of the following represents a nested if structure correctly?

- 1. if(a) else if(b)
- ☒ 2. if(a) { if(b) { } }
- 3. if(a) && if(b)
- 4. if(a) then if(b)

16. Debug the Code:

```
int x = -10;  
if(x > 0)  
    System.out.println("Positive")  
else  
    System.out.println("Negative");  
1. Missing braces  
☒ 2. Missing semicolon after println()  
3. Wrong comparison  
4. None
```

17. Which control structure is used when you have 3 or more mutually exclusive conditions?

- 1. Nested if
- ☒ 2. if-else if-else
- 3. Ternary
- 4. switch

18. What will the following code print?

```
int a = 10, b = 5;  
if(a > b)  
    if(a > 100)  
        System.out.println("Big");  
    else  
        System.out.println("Small");  
1. Big  
☒ 2. Small  
3. Error  
4. Nothing
```

19. What is the primary limitation of the switch statement in Java?

- 1. Cannot compare integers
- ☒ 2. Cannot evaluate logical expressions or ranges
- 3. Requires semicolons after each case
- 4. Cannot use strings

20. Guess the Output:

```
int day = 3;  
switch(day){  
    case 1: System.out.println("Monday"); break;  
    case 2: System.out.println("Tuesday"); break;  
    case 3: System.out.println("Wednesday"); break;  
    default: System.out.println("Invalid"); }
```

- 1. Monday
- 2. Tuesday
- ☒ 3. Wednesday
- 4. Invalid

21. Which case will execute if no case matches in a switch block and no default is defined?

- 1. First case
- 2. Last case
- ☒ 3. No case
- 4. All cases

22. Which of the following statements is true about break in switch?

- ☒ 1. Optional, but prevents fall-through
- ☐ 2. Mandatory after every case
- ☐ 3. Must be the last line of switch
- ☐ 4. Required only in default

23. Debug the Code:

```
int choice = 2;  
switch(choice){  
    case 1: System.out.println("Option 1");  
    case 2: System.out.println("Option 2");  
    default: System.out.println("Default");}
```

- ☐ 1. Option 2
- ☒ 2. Option 2, Default
- ☐ 3. Option 1, Option 2, Default
- ☐ 4. Error

24. Which of these is the correct usage of switch?

- ☐ 1. switch (x > 5)
- ☒ 2. switch ("Hello")
- ☐ 3. switch (x && y)
- ☐ 4. switch (x < 10)

25. Which one is NOT suitable to be implemented using switch-case in Java?

- ☒ 1. Checking age ranges
- ☐ 2. Menu options (1, 2, 3...)
- ☐ 3. Weekday mapping (1-7)
- ☐ 4. Mapping grades A, B, C

26. A jacket originally priced at ₹2,000 is available at a 15% discount. What is the discounted price?

- ☒ 1. ₹1,700
- ☐ 2. ₹1,800
- ☐ 3. ₹1,750
- ☐ 4. ₹1,600

27. A trader gains 20% on selling an item for ₹720. What was the cost price?

- ☒ 1. ₹600
- ☐ 2. ₹580
- ☐ 3. ₹620
- ☐ 4. ₹700

28. A student scored 144 out of 160 in an exam. What percentage did she score?

- ☐ 1. 85%
- ☐ 2. 88%
- ☒ 3. 90%
- ☐ 4. 92%

29. A product costs ₹500. It is first marked up by 25%, then a discount of 10% is given. What is the final selling price?

- ☒ 1. ₹562.50
- ☐ 2. ₹550
- ☐ 3. ₹575
- ☐ 4. ₹600

30. If the price of an item is increased by 20%, by what percent must the consumption be reduced to keep the total expenditure same?

- ☒ 1. 16.67%
- ☐ 2. 20%
- ☐ 3. 18%
- ☐ 3. 25%