1. What is the default value of an integer variable in Java?

   a. 0

   b. 0.0

   c. null

   d. false

2. Which of the following is not a primitive data type in Java?

   a. int

   b. char

   c. string

   d. boolean

3. What will be the result of the expression: `5 / 2`?

   a. 2.5

   b. 2

   c. 2.0

   d. 2.5f

4. Which keyword is used to declare a constant in Java?

   a. const

   b. final

   c. static

   d. define

5. What is the result of the expression: `5 + 3 * 2`?

   a. 16

   b. 11

   c. 13

   d. 26

6. What is the value of `x` after the following code: `int x = 10; x += 5;`?

a. 5

b. 10

c. 15

d. 20

7. What does the `!=` operator represent in Java?

a. Greater than or equal to

b. Equal to

c. Not equal to

d. Less than or equal to

8. What is the result of the expression: `true && false`?

a. true

b. false

c. error

d. null

9. Which statement is used to execute a block of code repeatedly as long as a condition is true?

a. if

b. for

c. switch

d. while

10. In a switch statement, what is the purpose of the `break` statement?

a. Terminates the program

b. Skips the current case

c. Jumps to the next case

d. Exits the switch statement

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

```java
int x = 7;
if (x > 5) {
    System.out.println("Hello");
} else {
    System.out.println("World");
}
```

a. Hello

b. World

c. Hello World

d. No output

12. How many times will the following loop execute?

```java
for (int i = 0; i < 5; i++) {
    // code
}
```

a. 3

b. 4

c. 5

d. 6

13. What is the purpose of the `break` statement in a loop?

a. Exits the loop

b. Skips the current iteration

c. Jumps to the next iteration

d. Terminates the program

14. What is the size of the `char` data type in Java?

a. 4 bytes

b. 2 bytes

c. 8 bytes

d. 1 byte

15. Which of the following is a valid declaration of a double variable named "pi" in Java?

a. double pi = 3.14;

b. pi = 3.14;

c. var pi = 3.14;

d. Double pi = 3.14;

16. What is the result of the expression: `10 % 3`?

a. 1

b. 3.33

c. 0

d. 3

17. What does the `<<` operator do in Java?

a. Shifts bits to the right

b. Shifts bits to the left

c. Performs a logical AND

d. Performs a logical OR

18. Which of the following is a valid Java switch statement expression?

a. switch (x > 0)

b. switch (x)

c. switch {x}

d. switch (x + 2)

19. What is the output of the following code?

```java
int y = 15;
if (y % 2 == 0) {
    System.out.println("Even");
} else if (y % 3 == 0) {
    System.out.println("Divisible by 3");
} else {
    System.out.println("Odd");
}
```

a. Even

b. Divisible by 3

c. Odd

d. No output

20. What is the purpose of the `continue` statement in a loop?

a. Exits the loop

b. Skips the current iteration and continues with the next

c. Jumps to the next loop

d. Terminates the program

21. How is the `do-while` loop different from the `while` loop in Java?

a. `do-while` always executes at least once

b. `do-while` can only be used for numerical iterations

c. `do-while` is more efficient than `while`

d. There is no difference between them

22. Which method is used to find the maximum of two numbers in the Math class?

a. Math.max()

b. Math.maximum()

c. Math.compare()

d. Math.largest()

23. What is the result of `Math.ceil(5.3)`?

a. 5

b. 6

c. 5.3

d. 6.3

24. Which of the following is a correct usage of the `Math.round()` method?

a. Math.round(5.6, 1)

b. Math.round(5.6)

c. round.Math(5.6)

d. round(5.6)