1. \*\*Which of the following is NOT a valid data type in Java?\*\*

- a) int

- b) long

- c) char

- d) boolean

- e) string

2. \*\*What is the default value of a boolean variable in Java?\*\*

- a) 0

- b) 1

- c) false

- d) true

- e) null

3. \*\*Which data type is used to store a single character in Java?\*\*

- a) byte

- b) short

- c) char

- d) int

- e) float

4. \*\*Which of the following operators can be used to cast a data type to another?\*\*

- a) +

- b) -

- c) \*

- d) /

- e) (data-type)

5. \*\*What is the maximum value that can be stored in a short variable?\*\*

- a) 32767

- b) 65535

- c) 2147483647

- d) 9223372036854775807

- e) -9223372036854775808

6. \*\*What is the result of 10 % 3?\*\*

- a) 3

- b) 1

- c) 4

- d) 0

- e) Compilation Error

7. \*\*What is the output of the following code?\*\*

```java

int a = 10;

a = a++ + ++a;

System.out.println(a);

```

- a) 12

- b) 13

- c) 14

- d) 24

- e) Compilation Error

8. \*\*What is the difference between == and .equals() methods?\*\*

- a) == compares values, .equals() compares references.

- b) == compares objects, .equals() compares values.

- c) == compares references, .equals() compares objects.

- d) == compares primitives, .equals() compares references.

- e) There is no difference.

9. \*\*What is the result of the following expression: true && (false || true)\*\*

- a) true

- b) false

- c) Compilation Error

- d) none of the above

10. \*\*Which of the following bitwise operators shifts bits to the left?\*\*

- a) &

- b) |

- c) <<

- d) >>

- e) ~

11. \*\*What is the syntax of an if-else statement in Java?\*\*

- a) if (condition) statement; else statement;

- b) if condition then statement else statement;

- c) if (condition) { statement } else { statement };

- d) if condition: statement else: statement;

- e) if condition; statement elif condition; statement else statement;

12. \*\*What is the output of the following code?\*\*

```java

int num = 10;

if (num < 5) System.out.println("Number is less than 5");

else System.out.println("Number is not less than 5");

```

- a) Number is less than 5

- b) Number is not less than 5

- c) Compilation Error

- d) None of the above

13. \*\*What is the use of the switch statement?\*\*

- a) To execute a block of code based on a single condition.

- b) To execute a block of code based on multiple conditions.

- c) To repeat a block of code a certain number of times.

- d) To check if a value is within a range.

- e) To compare two values.

14. \*\*When should you use a nested if-else statement?\*\*

- a) When you have multiple conditions to check.

- b) When you want to avoid using a switch statement.

- c) When you want to repeat a block of code.

- d) When you want to compare two values.

- e) None of the above.

15. \*\*What is the difference between a break statement and a continue statement?\*\*

- a) break statement exits the loop, continue statement continues to the next iteration.

- b) break statement continues to the next iteration, continue statement exits the loop.

- c) Both break and continue statement do the same thing.

- d) break statement exits the program, continue statement exits the loop.

- e) None of the above.

16. \*\*What is the syntax of a for loop in Java?\*\*

- a) for (initialization; condition; increment) { statement }

- b) while (condition) { statement }

- c) do { statement } while (condition);

- d) for (variable : collection) { statement }

- e) None of the above.

---

1. \*\*Which of the following is a valid Java identifier?\*\*

- a) 123numbers

- b) String

- c) \_myVariable

- d) #myVar

2. \*\*What is the data type of the variable x in the following code?\*\*

```java

int x = 10;

```

- a) String

- b) float

- c) int

- d) boolean

3. \*\*What is the value of the expression 20 / 4?\*\*

- a) 5

- b) 4.5

- c) 16

- d) 24

4. \*\*How many bytes does a double data type occupy in memory?\*\*

- a) 1

- b) 2

- c) 4

- d) 8

5. \*\*Which of the following is NOT a valid data type in Java?\*\*

- a) long

- b) char

- c) byte

- d) double word

6. \*\*What is the output of the following code?\*\*

```java

int a = 10;

int b = 20;

int c = a + b;

System.out.println(c);

```

- a) 10

- b) 20

- c) 30

- d) Compile error

7. \*\*Which operator is used for modulo division?\*\*

- a) /

- b) %

- c) \*

- d) +

8. \*\*What is the value of the expression 10 << 2?\*\*

- a) 20

- b) 5

- c) 40

- d) 100

9. \*\*Which of the following is a logical operator?\*\*

- a) ++

- b) &&

- c) -

- d) \*

10. \*\*What is the difference between pre-increment and post-increment operators?\*\*

- a) No difference

- b) Pre-increment increments the value before evaluation, post-increment increments after evaluation

- c) Post-increment

increments the value before evaluation, pre-increment increments after evaluation

- d) Both increment the value before evaluation

11. \*\*What is the output of the following code?\*\*

```java

int age = 20;

if (age >= 18) {

System.out.println("You are eligible to vote.");

} else {

System.out.println("You are not eligible to vote.");

}

```

- a) You are not eligible to vote.

- b) You are eligible to vote.

- c) Compile error

- d) Runtime error

12. \*\*Which keyword is used for the else part of an if statement?\*\*

- a) if

- b) else

- c) elif

- d) elseif

13. \*\*What is the difference between == and = operators?\*\*

- a) = is used for assignment, == is used for comparison

- b) == is used for assignment, = is used for comparison

- c) Both are used for assignment

- d) Both are used for comparison

14. \*\*Which keyword is used to write a switch statement?\*\*

- a) if

- b) switch

- c) case

- d) break

15. \*\*What is the use of the break statement in a switch statement?\*\*

- a) To continue to the next case

- b) To exit the switch statement

- c) To start the switch statement

- d) To check the condition of the switch statement

16. \*\*What is the purpose of a loop?\*\*

- a) To control the flow of a program

- b) To repeat a specific block of code

- c) To iterate through data structures

- d) All of the above

17. \*\*What is the difference between a for loop and a while loop?\*\*

- a) The syntax

- b) The conditions for execution

- c) The use cases

- d) Both a and b

18. \*\*What is the syntax of a while loop in Java?\*\*

- a) while (condition) { statement }

- b) for (initialization; condition; increment) { statement }

- c) do { statement } while (condition);

- d) while condition { statement; }

Feel free to mix and match questions based on the level of difficulty you want for your quiz.