**Question 1**:  
Why can't reserved keywords in Java be used as variable names?

* A) Because they are highlighted in green in most IDEs.
* B) Because they represent specific literals that cannot be redefined.
* C) Because they have specific meanings in the Java language and are used for coding instructions. *(Correct Answer)*
* D) Because Java does not support using characters in variable names.

**Question 2**:  
What is the purpose of using indentation in Java code?

* A) To increase the execution speed of the code.
* B) To help the Java compiler parse the code.
* C) To improve the readability and logical flow of the code. *(Correct Answer)*
* D) To limit the number of statements per line.

**Question 3**:  
What is true about whitespace in Java?

* A) Java requires specific whitespace rules for code execution.
* B) Whitespace is used to format code and is ignored by the Java compiler. *(Correct Answer)*
* C) Whitespace increases the compilation time of Java programs.
* D) Java throws an error if there is too much whitespace between statements.

**Question 4**:  
What allows Java to distinguish between overloaded methods?

* A) The variable names used in the method.
* B) The return type of the method.
* C) The number and type of parameters in the method signature. *(Correct Answer)*
* D) The name of the method.

**Question 5**:  
Which of the following is a valid method to calculate the area of a circle using method overloading?

* A) public static double area(int radius)
* B) public static double area(double radius) *(Correct Answer)*
* C) public static double area(int side, int radius)
* D) public static double area(double base, double height, int shape)

**Question 6**:  
What is the purpose of the SquareStar method in the provided code?

* A) To print an array of integers.
* B) To generate and print a square pattern of stars with diagonals. *(Correct Answer)*
* C) To calculate the sum of numbers from 1 to the input number.
* D) To find the largest prime number in an array.

**Question 7**:  
What does the condition row == col check in the SquareStar method?

* A) If the current position is at the border of the square.
* B) If the current position is in the middle row of the square.
* C) If the current position is on the diagonal from top-left to bottom-right. *(Correct Answer)*
* D) If the current position is on the diagonal from bottom-left to top-right.

**Question 8**:  
What is the main advantage of using an if-else statement over a simple if statement?

* A) It requires fewer lines of code.
* B) It provides a fallback code block for when the condition is false. *(Correct Answer)*
* C) It automatically repeats the block of code.
* D) It checks multiple conditions at once.

**Question 9**:  
What is the primary purpose of a ladder if-else statement?

* A) To loop through a block of code repeatedly.
* B) To handle errors during program execution.
* C) To evaluate multiple conditions in sequence and execute the first matching block. *(Correct Answer)*
* D) To improve the performance of simple if statements.

**Question 10**:  
Which of the following is a potential limitation of using too many if-else statements?

* A) It makes the code easier to read.
* B) It improves code performance.
* C) It can make the program more complex and harder to maintain. *(Correct Answer)*
* D) It ensures all conditions are evaluated, regardless of results.