What will be the output of the following code when the value of day is set to 2 in a switch statement?

a) Monday

b) Wednesday

**c) Tuesday (Correct Answer)**

d) Invalid day

Which of the following best describes the use of nested switch statements?

a) They simplify the handling of single conditions.

**b) They are useful for checking multiple conditions and combinations.** **(Correct Answer)**

c) They are limited to evaluating numeric data types only.

d) They eliminate the need for curly braces.

What limitation does the nested switch statement have?

a) It can only evaluate integer values.

**b) It becomes difficult to read when overused.** **(Correct Answer)**

c) It cannot handle more than two conditions.

d) It must always include a default case.

Which loop statement in Java guarantees that the block of code executes at least once?

a) for loop

b) while loop

**c) do-while loop** **(Correct Answer)**

d) nested loop

In a do-while loop, when is the condition checked?

a) Before the loop body executes

**b) At the end of the loop after the body executes** **(Correct Answer)**

c) After every two iterations

d) Only if the loop runs more than once

What does setting a breakpoint in a debugger do?

a) Compiles the code

**b) Pauses code execution at a specific point** **(Correct Answer)**

c) Automatically fixes errors

d) Optimizes the code for performance

In the CheckPalindrome method, what is the purpose of the modulo operation (%)?

a) To initialize the reverse variable

**b) To obtain the last digit of the number** **(Correct Answer)**

c) To divide the number by 10

d) To check if a number is negative

What is the result of calling EvenNumSum(-1234) in the provided code?

a) Sum of even digits

**b) -1, indicating an invalid input (Correct Answer)**

c) 0, indicating no even digits

d) Error, due to incorrect input type

What happens if the condition in a while loop is always true?

a) The loop executes only once.

b) The loop will not execute.

**c) The program enters an infinite loop** **(Correct Answer)**

d) The loop condition will be ignored.

What does the Scanner class in Java do?

a) Compiles the program.

**b) Reads input from the user** **(Correct Answer)**

c) Writes output to a file.

d) Debugs the code for errors.