Python Loops Assignment

Coding Challenge:

Create a Python program that calculates the sum of all even numbers between 1 and a user-provided number (inclusive).

1. Ask the user to input a positive integer (n).
2. Use a **for loop** to iterate through numbers from 1 to n.
3. Check if each number is even and add it to a total sum.
4. Print the final sum.

Example Output:

```
Enter a positive integer: 10
The sum of all even numbers between 1 and 10 is: 30
```

Multiple Choice Questions:

MCQ 1:
What will the following code output?

```
count = 0
while count < 3:
    print(count)
    count += 1
```

A. 0, 1, 2, 3
B. 0, 1, 2
C. 1, 2, 3
D. Infinite loop

MCQ 2:
What is the purpose of the break statement in a loop?
A. Skip the current iteration and move to the next.
B. Exit the loop immediately.

C. Repeat the loop until the condition is false.
D. Pause the loop temporarily.

MCQ 3:

Which of the following is true about the `for` loop in Python?
A. It can only iterate over numbers.
B. It cannot work with strings.
C. It executes a block of code for every item in a sequence.
D. It runs until explicitly stopped with `break`.