

Python Loops Assignment - Answer Sheet

Coding Challenge Solution:

```
# Solution to calculate the sum of all even numbers between 1 and n
n = int(input("Enter a positive integer: "))
total_sum = 0
for num in range(1, n + 1):
    if num % 2 == 0:
        total_sum += num
print(f"The sum of all even numbers between 1 and {n} is: {total_sum}")
```

Multiple Choice Questions - Answers:

MCQ 1:

Question: What will the following code output?

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

Answer: B (0, 1, 2)

MCQ 2:

Question: What is the purpose of the `break` statement in a loop?

Answer: B (Exit the loop immediately)

MCQ 3:

Question: Which of the following is true about the `for` loop in Python?

Answer: C (It executes a block of code for every item in a sequence)