**Python Conditionals Post-Assessment Answer Key**

1. Here is a simple if statement with a typo. This code checks if a number is odd. However, there is a typo in the code. Can you find the typo and fix it?

def is\_even(number):

  if number % 2 == 0:

    return True

  else:

    return False

print(is\_even(3))

The typo in the first if statement is in the line number % 2 == 0. The correct line should be number % 2 == 1. This is because the if statement is checking if the number is odd, not even.

1. Here is an if statement with a logic error. This code checks if a number is greater than or equal to 10. Can you find the logic error and fix it?

def is\_greater\_than\_or\_equal\_to\_10(number):

  if number > 10:

    return True

  else:

    return False

print(is\_greater\_than\_or\_equal\_to\_10(9))

The logic error in the second if statement is in the line if number > 10:. The correct line should be if number >= 10:. This is because the if statement is checking if the number is greater than or equal to 10, not just greater than 10.

1. Here is an if statement with a runtime error. This code checks if a number is divisible by 5. Can you find the runtime error and fix it?

def is\_divisible\_by\_5(number):

  if number % 5 == 0:

    return True

  else:

    return False

print(is\_divisible\_by\_5("hello"))

The runtime error in the third if statement is in the line print(is\_divisible\_by\_5("hello")). The code will cause a runtime error because the function is\_divisible\_by\_5() expects an integer as input, but the string "hello" is not an integer. To fix this error, you would need to change the input to an integer, such as 10.