Section 1: Variables (10 points)

What is the output of the following code?

```
x = 10
y = x + 5
x = 7
print(y)
```

Identify the error in the following code:

```
num = "10"
total = num + 5
print(total)
```

Section 2: Conditionals (10 points)

What will the following code print?

```
x = 8
if x > 10:
    print("Large")
elif x > 5:
    print("Medium")
else:
    print("Small")
```

Write a Python if-else statement that checks whether a number num is even or odd and prints "Even" or "Odd" accordingly.

Section 3: Loops (15 points)

What is the output of the following while loop?

```
count = 1
while count < 4:
    print(count)
    count += 1
```

Rewrite the following while loop as a for loop:

```
x = 0
while x < 5:
    print(x)
    x += 1
```

Write a loop that prints all even numbers from 2 to 10 (inclusive).

Section 4: Functions (15 points)

What is the output of the following function call?

```
def greet(name):
    return "Hello, " + name + "!"

print(greet("Alice"))
```

Fill in the blanks to complete the function that calculates the square of a number:

```
def square(____):
    return ____

print(square(4))  # Expected output: 16
```

Write a function called is_positive(num) that takes an integer and returns True if it's positive and False otherwise.

Section 5: Dictionaries (15 points)

What is the output of the following dictionary code?

```
student = {"name": "Bob", "age": 21}
print(student["name"])
```

Identify the error in the following code:

```
person = {"name": "Eve", "city": "Paris"}
print(person["age"])
```