

1. What will be the output of the following code?

```
numbers = [3, 4, 6, 8, 10]
result = 0
for num in numbers:
    result += num % 3
print(result)
```

A. 2 B. 3 C. 4 D. 5

2. Consider the following code:

```
def change_values(lst):
    for i in range(len(lst)):
        lst[i] = lst[i] * 2
    return lst

my_list = [1, 2, 3, 4]
new_list = change_values(my_list)
print(my_list)
```

What will be printed?

A) [2, 4, 6, 8]
B) [1, 2, 3, 4]
C) [2, 2, 3, 4]
D) None

3. What is the output of the following code?

```
x = [1, 2, 3]
y = x
y.append(4)
print(x)
```

A) [1, 2, 3]

B) [1, 2, 3, 4]

C) Error

D) [4, 2, 3]

4. Consider the following code:

```
def find_even(numbers):
    return [x for x in numbers if x % 2 == 0]

numbers = [1, 2, 3, 4, 5]
evens = find_even(numbers)
print(evens)
```

What is the output?

A) [2, 4]

B) [1, 3, 5]

C) []

D) [1, 2, 3, 4, 5]

5. What will the output of the following code be?

A) Less than 5

B) Greater than 5

C) Equal to 5

```
def check_value(x):
    if x < 5:
        return "Less than 5"
    elif x == 5:
        return "Equal to 5"
    else:
        return "Greater than 5"

result = check_value(5)
print(result)
```

D) Error

6. What is the output of the following code?\

```
def mystery_function(num):
    if num < 0:
        return -num
    else:
        return num

print(mystery_function(-10))
```

- A) -10
- B) 10
- C) None
- D) Error

7. What does the following code do?

```
numbers = [1, 2, 3, 4, 5]
print(len(numbers))
```

- A) Prints the largest number in the list
- B) Prints the last number in the list
- C) Prints the number of items in the list
- D) Prints the sum of the numbers in the list

8. What will this code print?

```
colors = ["red", "green", "blue"]
colors[0] = "yellow"
print(colors)
```

- A) ["yellow", "green", "blue"]
- B) ["red", "green", "blue", "yellow"]
- C) ["yellow", "green"]
- D) ["red", "yellow", "blue"]

9. What will the following code output?

```
for i in range(1, 6):
    if i % 2 == 0:
        print(i)
```

- A) 1 2 3 4 5
- B) 2 4
- C) 0 2 4
- D) 1 3 5

10. What will the following code output?

```
name = "Emily"
if len(name) > 4:
    print("Name is long")
else:
    print("Name is short")
```

- A) Name is long
- B) Name is short
- C) Error
- D) Nothing