

Assignment 1 - Python for Data Science | Vandana C | PES2UG22EC150

1. What will be the output of the code?

```
Y=7  
X%=Y  
print(X)
```

- A. 1
- B. 2
- C. 3
- D. 4

ANSWER - A

2. What is the output of the following code?

```
a = 7  
b = 3  
c = not (a < 5) and (b == 3) or (a == 10)  
print(c)
```

- A. True
- B. False
- C. None
- D. 1

ANSWER - A

3. What is data visualization in Python?

ANSWER - Data visualization is the process of representing data graphically to identify patterns, trends, and insights easily. In Python, libraries like Matplotlib and Seaborn are commonly used for creating plots and charts.

4. What is slicing in Python sequences? Explain with examples using strings and lists.

ANSWER : Slicing is a method of extracting a portion of a sequence using indices. The syntax is:

```
sequence[start : stop : step]  
start → index where slice begins (default = 0)  
stop → index where slice ends (not included)  
step → interval between elements (default = 1)
```