**Very Basic Python Questions on Variables, Strings, and Type Casting**

Variables – Basics

1. What is a variable in Python?

A: A variable in Python is a symbolic name that is a reference or pointer to an object. It stores data that can be used and modified later.

2. How do you declare a variable in Python?

A: By assigning the value using an equal sign

For example : x=20

3. Can you change the value of a variable after declaring it in Python? YES

4. Does Python require declaring the variable type? NO It can be done using dynamic typing .

5. What will happen if you use a variable before assigning a value to it?

A: We will get a NAME ERROR

6. Is Python a case-sensitive language for variable names? YES

8. What symbols are allowed in variable names apart from letters and numbers?

A: Underscore.

9. Is my\_var the same as My\_Var in Python?

A: NO , since python is case sensitive language.

10. What is the difference between assignment = and equality == in Python?

A : = is used to assign the value and == is used compare two values .

Variables – Data Types & Examples

1. How do you assign an integer value to a variable?

A: Using an = operator . x=10

2. How do you assign a floating-point value to a variable?

A: c = 3.14;

3. How do you assign a string value to a variable?

A: It is assigned using “ ” . Example : name = “gagana”

4. What is the type of variable x = True ?

A: bool

5. How do you check the type of a variable?

A: Use type(x) function.

6. Can a variable change its type after assignment? YES

7. What will be the type of x = 3 + 4.5 ?

A: float.

8. Give an example of assigning multiple variables in one line.

A: ria = mia = gia = sia = “Employee”

9. What is dynamic typing in Python?

The type of a variable is determined at runtime and can change.

10. What will happen if you assign x = "5" and then do x = x + 2 ?

A: TypeError: can only concatenate str (not "int") to str

Strings – Basics

1. How do you define a string in Python?

A: Using single or double quotes: 'hello' or "hello"

2. What is the difference between single and double quotes in strings?

A: There is no functional difference between them.

3. How do you create a multi-line string?

A : It can created using triple quotes “””.

4. How do you find the length of a string?

A: Use len(string) function.

5. How do you access the first character of a string?

A: String[0]

6. What is string slicing?

A: Extracting a substring using index range . string[start:end].

7. What does my\_str[0:3] return if my\_str = "Python" ?

A: pyt

8. How do you concatenate two strings?

A: Using + operator: 'Hello' + ' World'

9. What is the result of "Hello" \* 3 ?

A: HelloHelloHello

10. Are strings mutable or immutable in Python?

A: Immutable .

Type Casting – Basics

1. What is type casting in Python?

A: Converting one data type to another .

2. How do you convert a string "123" to an integer?

A : int(‘123’)

3. How do you convert a float 3.5 to an integer?

A: int(3.5)

4. How do you convert an integer 5 to a string?

A: str(5)

5. What happens if you try to convert a string "abc" to an integer?

A: Python will raise ValueError.

6. How do you convert a string "3.14" to a float?

A: Float(‘3.14’)

7. What will be the result of int(3.99) ?

A: 3

8. How do you check if a variable can be converted to a number safely?

A: Use try...except block to catch conversion errors.

9. What is the difference between str() and repr() in Python?

str() is for readable representation, repr() is for developer/debugging representation.

10. How do you convert a boolean True to an integer?

A: int(True)