**Variables – Basics**

1.What is a variable in python?

It is a container, it is used to store the values.

2.How do you declare a variable in python?

We can declare a variable simply by assigning a value to a name.

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

Yes we can change.

4.Does python require declaring the variable type?

No.

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

It will return name error.

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

Yes.

7.Can a variable name start with a number in python?

No.

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

Underscore\_

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

No.

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

Assignment operator = is used to assign the values and equality operator == is used to check whether two variables are equal or not , it returns a Boolean value as a result.

**Variables – Data Types & Examples**

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

By simply giving the integer value to a variable.

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

By assigning a number that includes a decimal point.

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

To assign a string value to a variable, you enclose the text in single(‘) or (“) double quotes.

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

Boolean

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

By using type() function

6.Can a variable change its type after assignment?

Yes.

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

Float.

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

x=y=z=alphabets.

9.What is dynamic typing in python?

You don’t need to declare the data type of a variable when you create it.

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

It will give an type error because it can only concatenate str (not “int”) to str.

**Strings – Basics**

1.How do you define a string in Python?

We define a string by enclosing text in single or double quotes.

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

There is no functional difference.

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

To create a multi-line string we use triple quotes either “””(double) or ‘’’(single).

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

Use the built-in len() function.

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

Indexing.

6.What is string slicing?

It is way to extract a portion of a string using indexing.

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

It will return “Pyt”

8.How do you concatenate two strings?

By using the + operator.

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

‘HelloHelloHello’.

10.Are strings mutable or immutable in Python?

Immutable.

**Type Casting – Basics**

1.What is type casting in Python?

It is the process of converting a value from one data type to another, like from a string to an integer, float to int.

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

int(“123”) function.

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

By using int(3.5) function.

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

By using str(5).

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

We will get value error.

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

Float(3.14) by using float function.

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

3

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

To safely check if a variable ca be converted to a number in python, you should use a try – except block.

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

Both sr() and repr() are used to get a string representation of an object, but they serve different purposes.

Str() – user friendly, human readable

Repr()-developer friendly, code-like

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

Using int() function.