1. In the below elements which of them are values or an expression? eg:- values can be integer or string and expressions will be mathematical operators.

Ans:

\* - Expression

'hello' - Values

-87.8 - Values

- - Expression

/ - Expression

+ - Expression

6 - Values

2. What is the difference between string and variable?

Ans: String is the type of data where we can represent a sequence of characters and strings are immutable, where Variables o n the other hand Variables in python are used to store the data which we can be referenced through out the code, variables can store multiple types of data including strings, lists, numbers, dictionaries etc.

3. Describe three different data types.

Ans:

1. Strings: Strings can represent the subsequent of characters in single or double quotes.

e.g “Hello”, ‘coders’, “123”

1. Integers: Integers represents whole numbers without decimal.

e.g 12, 23, 445

1. Boolean: Boolean represents **True** and **False.**

e.g True, False

4. What is an expression made up of? What do all expressions do?

Ans: In Python expressions are made up of operators, Operators are symbols that represent arithmetic operations. It helps in calculating values.

5. This assignment statements, like spam = 10. What is the difference between an expression and a statement?

Ans: An expression is a combination of values, variables or operators that evaluates to a single value, arithmetic operations can perform with the help of expressions.

Statements are instructions that Python interpreter can execute. e.g. spam = 10

Here value 10 is assigned to span variable.

6. After running the following code, what does the variable bacon contain?

bacon = 22

bacon + 1

Ans: bacon = 23

7. What should the values of the following two terms be?

a.'spam' + 'spamspam'

b. 'spam' \* 3

Ans: a. spamspamspam

b. spamspamspam

8. Why is eggs a valid variable name while 100 is invalid?

Ans: As per python documentation, we cannot create a variable name with an integer, It should start with a letter (a-z) or an underscore (\_).

9. What three functions can be used to get the integer, floating-point number, or string version of a value?

Ans: a. Int()

b. float()

c. str()

The above three functions can be used to get the integer, floating-point number, or string respectively.

10. Why does this expression cause an error? How can you fix it?

'I have eaten ' + 99 + ' burritos.'

Ans: This expression will cause an error because in Python we cannot concatenate a string with an integer, to do that we can simply use ‘f’ string.

e.g. (f"'I have eaten'+ 99 + 'burritos.'")

or

we can convert 99 into the string.

e.g. 'I have eaten ' + str(99) + ' burritos.'