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.

\* is an expression

'hello' is a value

-87.8 is a value

- is an expression

/ is an expression

+ is an expression

6 is a value

2. What is the difference between string and variable?

Variable is like a bucket. We can store values or information in it. String itself is a value.

3. Describe three different data types.

int

int is Integer. Integer includes all whole number. Example: 1,2,-5,8,-100 etc.

str

str is string . It is generally sequence of characters. Example: “Hello” , “India is best”.

bool

In python bool is a datatype where only 2 types of data are there. They are True and False.

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

Expressions are made up using operators, literals and identifiers. Using all those expression we can get some value as a result or we can solve mathematical problems in computer.

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

Expression: Expression is a combination or sequence of operators, literals , identifiers and function calls that always produces or returns a result .

Statement: Each line of code which compiler can run is a statement.

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?

'spam' + 'spamspam'

'spam' \* 3

Both will return “spamspamspam”

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

In python variable name cannot start with integer it can be used after using string as a variable name like eggs100 is valid but 100 or 100eggs is not valid.

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

int(value) will convert convertable value into integer.

float() will convert convertable value into floating-point number.

str() will convert convertable value into string.

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

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

Here we are trying to append integer with string and they are different data type. Different data type can not be appended.