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.

\*

'hello'

-87.8

-

/

6

Ans: 'hello', -87.8 and 6 are values on the other hand \*, -,/,+ are expression

2. What is the difference between string and variable?

Ans: Strings are written within single or double quotation marks but variables don’t have any quotation mark.

3. Describe three different data types.

Ans: **Boolean**: This type of datatype can take only two values i.e true or false

**Numbers**: This type of datatype can hold numerical values. There are various subtypes of it:

int: These are integer datatypes

float: These are the floating point datatypes

comples: These are the complex number datatypes

**Strings**: These are the datatypes which can hold any character or numbers written within a single or double quotation mark.

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

Ans: **expression** is a sequence of operators and operands. For example x+y+z where x,y and z are the operands and + is the operator

Expressions are used to evaluate various mathematical or logical formulations.

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

Ans: **Expressions** are mathematical formulation that returns a value after evaluation however **statements** are standalone units which don’t return any value.

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

bacon = 22

bacon + 1

Ans: bacon is 23 after execution

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

'spam' + 'spamspam'

'spam' \* 3

Ans: Both the expression returns ‘spamspamspam”

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

Ans: A variable can never start with a numerical character.

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

Ans: int(), float() and str() are the functions used for integer, floating-point and strings respectively

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

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

Ans: Python cannot concatenate string with numerical values until the numerical value is typecasted to string datatype.