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.

\* : Expression

'hello': Value

-87.8: Value

- : Expression

/ : Expression

* : Expression

6 :Value

2. What is the difference between string and variable?

Answer: A string and a variable are not comparable. String is a data type in python while a variable is a reference/name given to an object of any data type/class including strings.

3. Describe three different data types.

Answer:

Integer: Similar to its mathematical name, an integer is number that can be either positive or negative but with no decimal places. It is represented as ‘int’ in python

Float: A float is a non-imaginary number with any number of decimal places. It is represented at ‘float’ in python

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

Answer: An expression is a made up of operators and operands. An expression is evaluated according to the precedence of its operators to give a new value.

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

Answer: A statement is a line of code that can be executed. An expression can be a statement but the reverse is not always true. For example, there are assignment statements, print statements and so on.

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

bacon = 22

bacon + 1

Answer: 22

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

'spam' + 'spamspam'

'spam' \* 3

Answer: Both return 'spamspamspam'

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

Answer: 100 is an integer, variable names cannot start with integer in python.

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

Answer: int(), float() and str()

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

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

Answer: Numbers cannot be concatenated with strings. We can fix it by keeping 99 between quotation marks like this: 'I have eaten ' + ‘99’ + ' burritos.'