**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?**

A string is some information which can stored a sequence of character inside “ ”, whereas a variable stores information. A string can be stored inside a variable.

**3. Describe three different data types.**

The three types of data types are:

1. **String (str):** A string value is always inside “ ”. We can’t perform mathematical operations on a string. It can store a sequence of characters.
2. **Integer (int):** An Integer stores whole number. We can perform mathematical operations on integers.
3. **Boolean (Bool):** A Boolean datatype can store only two values. E.g.: True and False, 1 and 0. They are used to decide weather a condition is True or False.

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

An expression is made up of a sequence of operators (+, -, /, =, ==, !=) and operands (a, b, 300, 28.8). All the expressions give a value as an output. An expression can be stored inside a variable.

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

An expression gives a value whereas, a statement can be used as a variable or as a comment.

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

**bacon = 22**

**bacon + 1**

22

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

**'spam' + 'spamspam'**

spamspamspam

**'spam' \* 3**

spamspamspam

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

A variable name cannot start with a number. As 100 is a whole number, it is an invalid variable name, whereas ‘eggs’ is a character and can be used as a variable name.

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

We can use type casting to convert the values:

1. int()
2. float()
3. str()

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

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

A string cannot be concatenated by an integer.

We can fix this error by putting 99 in quotes like ‘99’

The statement would become: 'I have eaten ' + ‘99’ + ' burritos.'