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**

6 - **Value**

2. What is the difference between string and variable?

**A variable is name of the location in the memory which can stores different data types like strings , int etc. String is type which the variables hold.**

**Eg : var1 = ‘Hello’ , var2 =100 . Var 1 variable holds the data of string type and var2 stores the data of type int.**

3. Describe three different data types.

**Numeric – Numeric data type can be either int, float, complex types which consists of numbers. Eg – 1000, 13.33 etc**

**Strings – Sequence of characters which are mentioned in quotes. Eg , ‘Hello’, “World”.**

**Boolean – Boolean data types can take either True or False value.**

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

**An expression is a made up of operators and operands. Expression produces a specific value.**

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

**Expression is a combination of operators and operands with produces a specific value whereas statement is an instruction which the interpreter executes.**

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

bacon = 22

bacon + 1

**Bacon will contain the value 22.**

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

'spam' + 'spamspam' - **The value will be ‘spamspamspam’.**

'spam' \* 3 – **The value will be ‘spamspamspam’**

8. Why is eggs a valid variable name while 100 is invalid? – **Variable names should start letter or underscore character. It cannot start with a number.**

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

**Integer – int(x)**

**Floating-point -number – float(x)**

**String – str(x)**

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

'I have eaten ' + 99 + ' burritos.' – **String and integer type can’t be concatenated together and hence will throw an error. 99 Fix will be - 'I have eaten ' + ‘99’ + ' burritos.'**