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' **[ Values ]**

-87.8 **[ Values ]**

- **[ Expression ]**

/ **[ Expression ]**

* + **[ Expression ]**

6 **[ Values ]**

2. What is the difference between string and variable?

**String is datatype that defines the type of data we want to store and variable is used to store data or information.**

3. Describe three different data types.

**integer : used to store numbers that are positive, negative or zero example -3, 4, 0.**

**float : used to store numbers that have fraction part example 3.56, 4.11, 2.5**

**string : used to store sequence of characters that are enclosed in single, double or triple quotes.**

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

**Expression is made up of operators like + , -, / , \* and operands like numbers. Expressions are used to perform operations on operands to produce new value.**

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

**Expression returns the new value as a result whereas statement does not return any value.**

**Example : It returns a new value 9 but a = 5+4**

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

bacon = 22

bacon + 1

**bacon = 22**

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

'spam' + 'spamspam'

'spam' \* 3

**The values would be:**

**‘spamspamspam’**

**‘spamspamspam’**

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

**Python rules allows variable names to have alpha-numeric names as a result of this eggs is valid variable name and since python rules do not allow variable names to start with numbers 100 is invalid name.**

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

**We can use the following function:**

**int() : function to get integer version of a value.**

**float(): function to to get float version of value.**

**str(): function to get string version of value.**

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

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

**As we are trying to concatenate integer value with string values we get the error as they are of different data types. To fix this we need to covert the integer type to string type as below:**

**'I have eaten ' + str(99) + ' burritos.'**