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 :**

**Values - ‘hello’, -87.8, 6**

**Expressions - \*, -, /, +**

2. What is the difference between string and variable?

**Ans :**

**Variable – In python variable is a symbol in which we store a value in a memory location and we can perform operations when it needed.**

**Eg – X=10, A=77.5**

**String – Anything we can stored in the variable using single or double quotes it is called string**

**Eg – A=”Kiran”**

3. Describe three different data types.

**Ans :**

**1) Numeric – In numeric data type numeric values are there. Numeric values can be Integer, Float, Complex number**

**2) Sequence Type – In python sequence is collection of ordered or unordered data types. There are three types a) List b)Tuple c)String**

**3)Boolean Type – Data type with one of the two built in values. True or False**

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

**Ans - An expression is a combination of operators and operands that is interpreted to produce some other value. Expressions perform Arithmetic Operations**.

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

**Ans :**

**A statement is a unit of code that has an effect, like creating a variable or displaying a value.**

**An expression is a combination of operators and operands that is interpreted to produce some other value**

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

bacon = 22

bacon + 1

Ans :

**The bacon variable is set to 20. The bacon + 1 expression does not reassign the value in bacon (that would need an assignment statement: bacon = bacon + 1)**

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

'spam' + 'spamspam'

'spam' \* 3

**Ans :**

**Both expressions evaluate the string ‘spamspamspam’**

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

**Ans** :

**Variable names cannot begin with a number.**

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

**Ans :**

**The int(), str() and float() functions will evaluate integer, string and float number**

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

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

**Ans :**

**Because 99 is an integer. To fix this problem convert 99 into string.**

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