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 : Value : -87.8, 6 Expressions : \*, -, /, +**

2. What is the difference between string and variable?

**Ans: Variable is an identifier to store a value in a memory location and to manipulate it as and when required.**

**We can allocate any string to a variable via placing it in between “ ” or ‘ ‘ mark. We can say that string is one type of variable.**

3. Describe three different data types.

**Ans:**

**1 Numeric: it refers to a data type which has numeric value. It can be an integer, floating point or complex number**

**2 Sequence type: it is the ordered collection of similar or different data types. It allows to store multiple values in an organized and efficient way. String, list and turple are examples of sequence types.**

**3**

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

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

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

bacon = 22

bacon + 1

**23**

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?

Ans : A variable name **must start with a letter or the underscore character**. A variable name cannot start with a number. A variable name can only contain alpha-numeric characters and underscores (A-z, 0-9, and \_ ). Hence eggs is valid variable name and 100 is invalid.

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

Ans : The **int() , float() , and str( ) functions** will evaluate to the integer, floating-point number, and string versions of the value passed to them.

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

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

Ans : It is giving error as in between string we are writing an integer value. To solve the same we need to put 99 into **‘ ‘.** Final code will be **'I have eaten ' + '99' + ' burritos.'**