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.

**Solution**

\* = **Expression**

'hello' = **Value**

-87.8 = **Value**

- = **Expression**

/ = **Expression**

* = **Expression**

6 = **Value**

2. What is the difference between string and variable?

**String**: A string is an array of characters written inside single or double quotes.

**Variable**: A variable is a container for storing Data values

3. Describe three different data types.

**Integer**: It contains positive or negative whole numbers. E.g. 5, 0 , -7 etc.

**Float**: It is specified by a decimal point. E.g. 5.42, 0.11

**Complex** **Number**: Its is specified by a real and imaginary part. E.g 4 +\_7j

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

**- An Expression is made of Operands and Operators (+,-)**

**- Expressions results in a value**

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

**- A statement is an instruction that a python interpreter can execute**

**- An expression only results in a value**

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

bacon = 22

bacon + 1

**ANS: 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?

**-A variable 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?

**Int( ), float( ), str( )**

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

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

**-It causes an error because a string literal is being combined with a numeric literal**

‘**I have eaten’ + str(99) + ‘burritos’**