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

* ------------------------------------- Expression

6 ------------------------------------- Value

2. What is the difference between string and variable?

>>Variables are symbols that you can use to store data in a program which can be fill with some data or value whereas Strings are data that we can use them to fill up a variable.

3. Describe three different data types.

>> **'int'** is one of the pre-defined class The purpose of int data type is that "To store Integer or Integral values(Number without any decimal values) in main memory of computer".

>>**'float'** is one of the pre-defined class and treated as Fundamental data type. The purpose of float data is that "To store floating point values or real constant values(Numbers with decimals places).

>>**'complex'** is one of the pre-defined class and treated as Fundamental data type.The purpose of complex data type is that " To store Complex Numbers ".

=>The General format of Complex Numbers in Python programming is shown bellow.

a+bj or a-bj

Here 'a' is called Real Part, 'b' is called Imaginary Part

'j' represents sqrt(-1)

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

>>A combination of operands and operators is called an expression.

>>The expression in Python produces some value or result after being interpreted by the Python interpreter.

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

>> this statement is a complete line of code that performs some action. While expression is any section of the code that evaluates to a value.

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

bacon = 22

bacon + 1

>>22

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

'spam' + 'spamspam'

'spam' \* 3

>>'spamspamspam'

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

>>as we know a variable can start with any letter only, neither any digit or any special character.

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

>>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.'

>>error because an interpreter can only concatenate str (not "int") to str.

>>fix => 'I have eaten ' + '99' + ' burritos.'