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?

ANS : String is a sequence of characters which is usually enclosed in “” or ‘ ‘(single or double quote)

Variables are memory location used to store values

3. Describe three different data types.

ANS : INT , BOOL , FLOAT , STRING , COMPLEX

STRING : Sequence of characters enclosed in double quotes it can be a mix of special characters and numbers

BOOL : it usually represents only 2 values either TRUE = 1 AND FALSE = 0

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

ANS : Expression is the combination of values, variables, operator and calls to functions.

Expression is a representation of something like numbers, strings, list, etc

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

ANS) EXPRESSION: Expression represents something like numbers, strings, operators, etc,

Expression is the combination of number, string, operators and calls to function.

STATEMENT: Any assignment to a variable or function is called a statement, anything which does some operations is called as statement,

All statement consist of expression but no expression can consist a statement.

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

bacon = 22

bacon + 1

ANS) bacon will be equal to 23

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

'spam' + 'spamspam'

'spam' \* 3

ANS) the output of both will be: 'spamspamspam'

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

ANS) The variables should always start from letters or underscore and integer cannot be a variable.so '100' is not a valid variable and 'eggs' which are a valid variable.

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

ANS) The three functions used to get the integer, floating-point number and string of a value are int(), float() and str() respectively.

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

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

ANS) Concatination operation is done between the same type of objects. Since the above code contains integer value to concatinate with string type.

so, the expression cause an error.This can be fixed by type casting the interger to string.

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