**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 types:- ‘hello’, -87.8, 6

Expressions:- \*, - , /, +

**2. What is the difference between string and variable?**

**Ans:-**

String is a data type used to specify that we are storing data text information where as variable is a name assigned to data stored in a memory to access or modify.

**3. Describe three different data types.**

**Ans:-**

Int: used to store both negative and positive number without fractions and decimals

Float:- used to store decimal number  
Complex numbers:- It is a summation of real part and imaginary part

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

**Ans:-**

An expression is a combination of variables and operators.The expression in python produces some values or result after being interpreted by the python interpreter.

Example; x = x + 10

**5. This assignment statements, like spam = 10. What is the difference between an**

**expression and a statement?**

**Ans:-**

The expression in python produces some value or result after being interpreted by the python interpreter where as a statement is not evaluated for some result. A statement is used for creating variables or for displaying values.

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

**bacon = 22**

**bacon + 1**

**Ans:-**The value of the bacon variables is still 22 since after adding the value of 1 the new value was assigned back to bacon  
  
**7. What should the values of the following two terms be?**

**‘spam’ + ‘spamspam’**

**‘spam’ \* 3**

**Ans:-**

spamspamspam

spamspamspam

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

**Ans:-**

* Variable name should not start with a number
* variable name must start with a letter or the underscore character
* variable name can only contain alpha-numeric characters and underscores (A-z, 0-9, and \_ )
* Variable names are case-sensitive

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

**Ans:-**

int(), float(), str()

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

**‘I have eaten’ + 99 + ‘burritos.’**

**Ans:-**

In the above example we are adding string and int since string concatenation will only works on strings data type inorder to fix the error we need to change the 99 integer data type to string data   
  
**‘I have eaten’ + ‘99’ + ‘burritos.’**