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. Values :'hello', -87.8 and 6   
Expressions : \* , - , / , +

2. What is the difference between string and variable?

String: A string is a datatype in which characters are stored. String values need to be stored inside double or single quotes.

Variable: A variable serves the purpose of storing values be it of any datatype(including string)

eg: A = “Hi, How are you?”  
Here,“Hi, How are you?” is the string and A is the variable

3. Describe three different data types.

Ans.

String: Used to store character values. eg ‘Hello@123+’

Float: Used to store numerical values which may or may not have values in decimal places. eg 5.6, 7.0

Int: As is clear from the name it is the datatype used for storing integers eg 5, 7, 1

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

An expression is made up of a combination of values, operators, variables and function calls.

Expressions produce a value or a result.

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

Ans. An expression produces a value when executed but that is not the case with statement.

Statements can range from simple assigning of values to variables to far complex ones.

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

bacon = 22

bacon + 1

Ans. The variable bacon still contains the value 22 but the output of this code will give 23

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

'spam' + 'spamspam'

'spam' \* 3

Ans.Both of them will be ‘spamspamspam’

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

Ans. Because Python does not allow for variables name to start from a number.

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

Ans. int(), float() and str() respectively

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

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

Ans. Because integer values are not allowed to be concatenated, it can be fixed by changing 99 to a string value, to fix it make it as: 'I have eaten ' + ‘99’ + ' burritos.' or 'I have eaten ' + str(99) + ' burritos.'