**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: A String is a datatype (an array of characters) and Variable is an entity to store values that can be used for later. Variables are stored in memory.

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

Ans:

Int – Integer datatype describes the integer type data (-2147483648 through 2147483647)

Float – Decimal datatype describes the floating-point numbers (1.04, 2.0512)

Str – String datatype is an array of characters

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

Ans: An expression is made of mathematical operators that can perform the operations to output a definite result. Every expression leads to a value.

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

Ans: An expression evaluates the mathematical operations while statements are something that helps us to create valid instructions.

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

bacon = 22

bacon + 1

Ans: 22

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

'spam' + 'spamspam'

Ans: spamspamspam

'spam' \* 3

Ans: spamspamspam

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

Ans: Because python does not allow the naming of variable to start with number.  
Some valid naming conventions are:   
a   
las

As\_12

Asf1

**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: We cannot concatenate an ‘int’ datatype directly to ‘str’. We need to either type cast the integer to string or add quotes to it.  
  
‘I have eaten’ + str(99) + ‘burritos’

‘I have eaten’ + ‘99’ + ‘burritos’