

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: Please find the answer in the below table

*	Multiply	Expression / Operator
'hello'	String	Value
-87.8	Float	Value
-	Subtraction	Expression / Operator
/	Division	Expression / Operator
+	Addition	Expression / Operator
6	Integer	Value

2. What is the difference between string and variable?

**Ans: String is a data type which can hold alphabets and characters values only.
Variable can be of string type, integer type or float type etc.**

3. Describe three different data types.

Ans: String, Integer and Float

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

Expressions are combination of values and operators, like an integer value, a string value or could be an instance of a class. All Expressions evaluate to a single value.

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

Ans: Expression contains only the value, but a statement contains more, an expression and a operator as well to form a complete statement code. When a statement is executed some output is expected whereas expression will reduced to a single value.

So in spam = 10 statement spam is a variable , '=' is a an operator and 10 is an expression

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

```
bacon = 22
```

```
bacon + 1
```

Ans: If the code is run the output displayed will be 23 but the value of bacon will remain 22.

The value of bacon does not change as we are not assigning bacon +1 to bacon hence the value will remain same as 22.

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

```
'spam' + 'spamspam'
```

```
'spam' * 3
```

Ans: Both will give same output as below.

```
'spam' + 'spamspam' ---'spamspamspam'
```

```
'spam' * 3 ---'spamspamspam'
```

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

Ans: In Python a variable name should start with an alphabet hence 100 is not a valid variable name.

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

Ans: 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.'
```

Ans:

'I have eaten' and 'burritos' are string and 99 is an integer. Therefore, when we try to concatenate string with an integer it will throw an exception.

To fix this, we shall type cast the integer to string using below code.

```
'I have eaten ' + str(99) + ' burritos.'
```