**Answers to the assignment - 1**

**Q1.**

\* is an expression

'hello' is a value

-87.8 is a value

- is an expression

/ is an expression

* is an expression

6 is a value

**Q2.**

**A string** is the group of characters represented either in single or double quotes. **A variable** is the name that allocates primary memory location in our computer system.

**Q3. Describe three different data types.**

**(a) Integer type**

The type of the *integers* is int. This type of data comprises the set of all integers, but since this set is infinite, in Python the set is really limited by the capacity of the available memory.

**(b) Boolean type**

In Python the class that represents Boolean values ​​is bool. This class can only be instantiated with two values ​​/ objects: True to represent true and False to represent false.

**(c) Character string type**

Another basic type of Python, and essential, are the sequences or character strings. This type is known as *string* although its true class is str.

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

Expressions are made up of basic algebra operators and these expressions help us to perform mathematical calculations.

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

An  **expression**  is any unit of code that resolves to a value.

A  **statement or statement**  is an instruction that defines an action.

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

**bacon = 22**

**bacon + 1**

Answer: **23**

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

**'spam' + 'spamspam'**

**'spam' \* 3**

**Answers:** (i) **‘**spamspamspam’ (ii) ‘spamspamspam’

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

**Answer:** Eggs is a valid variable since the letter starts with an alphabet and 100 is invalid variable since the letter starts with numeric.

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

**Answer:** (i) int() is used to evaluate integer

(ii) float() is used to evaluate floating point number

(iii)str() is used to evaluate string values.

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

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

**Answer:** Concatenation of string and integer is not possible. We can fix the error by writing ‘99’ or str(99). After fixing the error, the output is as follows.

I have eaten 99 burritos.