**Python Basic Assignment 1 - Submitted by Shankar Eaga / Full Stack Data Science course**

**Answers captured in red color**

1. What are the differences between operators and values in the following?

\* *- Answer : It is a multiplication operator and used to multiple two variables.*

'hello' - Answer : It is a string, which is a type of data set and a variable is used to store string value.

-87.8 Answer : It is a floating number, which is a numeric data type and a variable is used to store floating value with negative sign prefix to it.

*- Answer : It is a minus operator and is used between two numbers (Integer or floating number).*

/ Answer : It is a division operator and is used to carry out mathematical operations between the two numbers (Integer or floating number).

+ Answer : It is an addition operator and is used to carry out mathematical operations between the two numbers (Integer or floating number).

6 Answer : It is a integer, which is a numeric data type and a variable is used to store integer value.

2. What is the difference between string and variable?

Spam -

'spam'

Answer : The main difference between String and Variable is String is a text type data set and variable is a container which is used to store data values (string is one of them, is stored in variables). The above quoted examples Spam is variable and ‘spam’ is a string. Strings are represented between double quotes (“ “) or single quotes (‘ ‘ )

3. Describe three different data forms.

Answer : The are various types of built in data types supported in Python programming and defined as below:

1. Str – is a text data type, used to store values (both text or number or combination) and surrounded by single quote (‘ ‘) or double quote (“”).
2. Numeric types – used to store integer, float or complex numbers.
3. Boolen type – used to store True or False

4. What makes up an expression? What are the functions of all expressions?

Answer : Expression is logical arrangement of numeric values, variables and mathematical operators and calls to functions. Expressions provides output by evaluation. The functions like print(), len() or type() , sends expression as arguments and evaluates and provide answers. For example,

* Print (2+2) – sends 2+2 expressions to python interpreter and returns 4 as output.
* len(“Python course”) - sends “Python course ” string as expressions to python interpreter and returns length of string.
* type(variable) – sends variable as a expression to python interpreter and returns variable data type as output.

5. In this chapter, assignment statements such as spam = 10 were added. What's the difference between a declaration and an expression?

Answer : A typical examples of declaration and expression is

Spam = 10 Assignment or declaration statement. A value 10 is assigned to variable

– spam

Spam = 4+6, Expression statement. In this case, first expression will be evaluated

and then the out-put will be assigned to the variable - spam.

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' Answer : ‘spamspamspam. Two strings are concatenated

'spam' \* 3 Answer : ‘spamspamspam . The string will be repeated three times.

8. Why is it that eggs is a true variable name but 100 is not?

Answer : As per Python syntax , a variable name should not be started with a number or number itself, therefore ‘eggs’ is a correct variable name and 100 is not.

9. Which of the following three functions may be used to convert a value to an integer, a floating-point number, or a string?

Answer : I believe question is incomplete but I have tried to answer by assuming that what function is used to find type of data ? function – type can be used to find type of data , whether it is a integer or float or string.

10. What is the error caused by this expression? What would you do about it?

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

Answer : Concatenation of string and integers are not allowed. By changing the integer 99 to ‘99’, the above statement can be evaluated and output is : 'I have eaten 99 burritos.'