**INeuron**

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**Assignment :- Python Basic Assignment No:-1**

**1. In the below elements which of them are values or an expression? e.g.:- values can be integer or string and expressions will be mathematical operators.**

\* :- Expression (multiplication operator)

'hello' :- Value(String Data Type)

-87.8 :- Value (Float data type) with - expression

- :- Expression(subtraction operator)

/ :-Expression(Division Operator)

+ :- Expression(Addition Operator)

6 :-Value(Integer Data type)

**2. What is the difference between string and variable?**

**String:** - In Python, Strings are arrays of bytes representing Unicode characters. A string is a collection of one or more characters put in a single quote, double-quote or triple quote. In python there is no character data type, a character is a string of length one. It is represented by str class.

**Variable: -** A Python variable is a symbolic name that is a reference or pointer to an object. Once an object is assigned to a variable, you can refer to the object by that name.

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

**Python Numbers:-**Integers, floating point numbers and complex numbers fall under Python numbers category. They are defined as int, float and complex classes in Python. example

|  |  |
| --- | --- |
| **Value** | **Data Type** |
| 36 | Integer |
| 3.14 | Float |
| 0b1111 | binary |

**Python List:-**List is an ordered sequence of items. It is one of the most used data type in Python and is very flexible. All the items in a list do not need to be of the same type. Example

Num\_list = [1,2,3,4,5]

**Python Tuple:-**Tuple is an ordered sequence of items same as a list. The only difference is that tuples are immutable. Tuples once created cannot be modified.

Num\_tuple:- (1,2,3,4,5)

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

An expression is a combination of operators and operands that is interpreted to produce some other value. In any programming language, an expression is evaluated as per the precedence of its operators.Example

a, b=10,20

c= a+b #expression with addition operator

print(c)

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

In programming language terminology, an “expression” is a combination of values and functions that are combined and interpreted by the compiler to create a new value, as opposed to a “statement” which is just a standalone unit of execution and doesn’t return anything.

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

**bacon = 22**

**bacon + 1**

Ans:- 23

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

**'spam' + 'spamspam' =** 'spamspamspam'

**'spam' \* 3 =** 'spamspamspam'

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

Variable name cannot begin with number

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

Int():- To get integer value

float():- To get float value

str():- To get string value

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

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

Concatenation can be performed on string data type only.

Correct answer:- 'I have eaten ' + ‘99’ + ' burritos.'