**Python – Assignment 1**

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| S. No. | Question / Answer |
| 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 |
|  | Operator  Value (String)  Value (Float)  Operator  Operator  Operator  Value (Integer) |
| 2 | What is the difference between string and variable? |
|  | A string is a static value constructed by cascading individual characters, while variable is the placeholder that can carry values stored in it, like, int, str, and float. |
| 3 | Describe three different data types. |
|  | The 3 data types are integer, string and floating point. |
| 4 | What is an expression made up of? What do all expressions do? |
|  | An expression is made up of operands and operators, where the operation signified by the said operator is executed on the operand(s). There can be one or more operands in an expression. An expression evaluates to a single value. |
| 5 | This assignment statements, like spam = 10. What is the difference between an expression and a statement? |
|  | An expression is composed of some operands and operators, and it needs a computation to provide the result. While statements do not need computation, they directly provide stated information. |
| 6 | After running the following code, what does the variable bacon contain?  bacon = 22  bacon + 1 |
|  | 22. The value inside bacon variable remains unchanged since we are not storing the value after modification. |
| 7 | What should the values of the following two terms be?  'spam' + 'spamspam'  'spam' \* 3 |
|  | Both of them return the same result, i.e.  spamspamspam |
| 8 | Why is eggs a valid variable name while 100 is invalid? |
|  | The variable names need to follow certain naming conventions. The conventions are as follows:   1. The variable name should be composed of alphabet, digits and underscore(\_) character. No other characters allowed. 2. The variable name can only start with an alphabet or underscore(\_) but not a digit. Likewise, a variable name can not be composed of only digits.   Given the second clause, 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? |
|  | Integer -> int()  String -> str()  Float -> float() |
| 10 | Why does this expression cause an error? How can you fix it?  'I have eaten ' + 99 + ' burritos.' |
|  | When we use (+) sign with strings as the operands, it is used as a concatenation operator. Here we are trying to concatenate an integer to a string which is not allowed. To fix this we need to typecast the integer to string by using str() function.  'I have eaten ' + str(99) + ' burritos.' |