**Python Assignment-1**

**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.

\* Operators

‘hello’ Straing

-87.8 expressions

- operators

/ Operators

+ operators

6 Integer

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

* **String**: It is the type of data we enter as a user to the system. It is the collection of all alphanumeric and special characters. There are lot of functionalities likes concatinate,splits,joins,substring and replace etc. .
* **Variable**: It is like a container which can store values in its memory.

Variable can be two type local variable and global variable a local variable that is declare inside the any function block it can be access only with in function block and global variable are declare outside of function block it can be access inside as well outside of function block.

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

* **Number:** When user enter Integer as well decimal type values.
* **String:** When user enter Character values.
* **NULL**: It is undefine data type when enter no values.
* **Boolean**: It’s the binary values like true and false.

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

Expression is the combination of the operands and operators that produce their values. There is different type of expression present in any programming language.

1. **Constant Expression**: These are the expressions that have constant values only. x=2+7
2. **Arithmetic Expressions:** x=40, y=20

x+y,x\*y,x/y,x%y,x^y

3. **Relational Expressions:** >, <,>=, <= it is used comparison two expression like (X-Y)>=(A-B)

4 **Logical Expressions:** These are kinds of expressions that result in either *True* or *False.* It basically specifies one or more conditions. For example, (10 == 9) is a condition if 10 is equal to 9. As we know it is not correct, so it will return False.

Eg. And,Or,Not operator

**5. Bitwise Expressions:** These are the kind of expressions in which computations are performed at bit level

A=12 A>>2 right shift operator

A=12 A<<2 left shift operator

5. **This assignment statements, like spam = 10. What is the difference between an**

**expression and a statement?**

A statement is a group of expressions and/or statements that you design to carry out a task or an action.

Eg:

### **Inline statements**

A=800

**if statement:**

if( I’m a good man ) {  
 status = "you should know I mean it";   
  
 print(status)  
}

Expressions can be assigned or used as operands, while statements can only be declared.

Statements create side effects to be useful, while expressions are values or execute to values.

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

**bacon = 22**

**bacon + 1**

Bacon=23 as output

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

* “spam” + “spamspam” it will be concatenate string and output is

**spamspamspam**

* “spam” \* 3 It will be print spam three time

**Spamspamspam**

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

Variable declaration is rule that:

* variable names cannot be started with numeric or special character like \*,0-9 digits, +, -,/&%$#@! Etc.
* In variable name cannot be include special character
* variable names cannot contain spaces between it.

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

**version of a value?**

* Int() convert string to int and float to int.
* Float() convert string to float and int to float.
* Str() convert float to string and int to string.

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

**‘I have eaten’ + 99 + ‘ burritos’**

Error You cannot concatenate string and int type value

99 is int whit ‘I have eaten’ and ‘burritos’ are string value

To fix issue

‘I have eaten’ + ‘99’ + ‘ burritos’