**Assignment 1**

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

\*

'hello'

-87.8

-

/

+

6

**Solution :**

**Operators are used to perform Assignment, Arithmetic, Logical operation on variables.**

**Values are used to perform the above operation based on operators.**

**Operators : - , /, +**

**Values : ‘hello’ , -87.8 , 6**

2. What is the difference between string and variable?

spam

'spam'

**Solution : variable is identifier, which can be used as placeholder to store values.**

**variable = spam**

**string is data type used to hold character sequence.**

**string = ‘spam’**

3. Describe three different data forms.

**Solution : Integer , String, Float , Double, Char**

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

**Solution : Expression is a sentence with minimum two values and at least one operator.**

**Types of Expression :**

1. **Arithmetic Expression eg. 55 + 4**
2. **Fractional Expression eg . 55 / 4**
3. **Algebraic Expression eg. 3j + 2**

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

**Solution** :

A **Function Declaration** defines a function with the specified parameters without requiring a variable assignment. They exist on their own.

**Function Declaration**

def a(spam):

print("test {}".format(spam) )

In function declaration we are declaring function, the function will not get called.

**Function Expression :**

test = a(4)

we are assigning function to variable, and function gets called and gives o/p.

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

bacon = 22

bacon + 1

**Solution**: **23**

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

'spam' + 'spamspam'

'spam' \* 3

**Solution** : For both statement produce **: 'spamspamspam'**

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

**Solution : variable name can not begin with numbers.**

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

**Solution : int(), float() , str()**

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

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

**Solution :**

**We can get :**

**TypeError: can only concatenate str (not "int") to str**

**because here 99 is not string value so we can convert 99 to string.**

**'I have eaten ' + str(99) + ' burritos.'**