## 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.

\*

'hello'

-87.8

-

/

+

6

**Ans:**

**expression: \*, -, /, +,**

**value: 'hello', -87.8, 6**

2. What is the difference between string and variable?

**Ans. Values are assigned to a variable; variable can be of different types like string, integer, boolean, etc. whereas string is one of the data types of a value**

3. Describe three different data types.

**Ans.**

* **String – text type, values enclosed inside ‘’ or “”** 
  + **eg. ‘hello…85Hi’ or “hello, how are you”**
* **Integer – whole numbers, value can be negative or positive number but no fractions eg. -5 or 174**
* **Boolean – true or false**

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

**Ans. Expression is made up of operators which perform operations on values.**

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

**Ans. Assignment statements assign value to the variable whereas expression are combination of values and/or variables and operators.**

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

bacon = 22

bacon + 1

**Ans. Variable bacon contains 22**

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

'spam' + 'spamspam'

'spam' \* 3

**Ans. Both terms output same value i.e. spamspamspam**

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

**Ans. 100 is value of integer type and can be assigned to variable egg, whereas 100 itself cannot contain any other value that’s why numeric or variable name starting with number is invalid.**

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

**Ans. example,**

**bacon = 22**

**int\_bacon = int(bacon)**

**float\_bacon = float(bacon)**

**str\_bacon = str(bacon)**

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

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

**Ans. This expression causes error due to type mismatch., 99 is int whereas ‘I have eaten’ and ‘burritos’ is string and so concatenation cannot be performed.**

**We can fix this as below:**

* **‘I have eaten’ + str(99) + ‘burritos’**