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.

**\* -----expression**

**'hello' -----value**

**-87.8 -----value**

**- ------expression**

**/ -------expression**

* **-----expression**

**6 -------value**

2. What is the difference between string and variable?

**String is a value represented within “ ”.**

**Ex: “Zubair”**

**‘Ineuron’**

**Variable is represented without “ “, which contains values.**

**Ex: z= “Zubair”**

**i= ‘Ineuron’**

**In above examples, z and i are variables which contains values like Zubair and Ineuron respectively.**

3. Describe three different data types.

**Data types are categorised into mutable and immutable datatypes.**

**Immutable data types are Numbers, Strings and Tuples.**

**Mutable data types are Lists, Dictionaries and Sets.**

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

**Expression is made up operators and other values to perform given task.**

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

**Spam = 10 ---- This is an expression.**

**Type(Spam) ---- assignment**

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

bacon = 22

bacon + 1

**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?

**eggs is valid variable as it doesn’t contain or represents any value.**

**“eggs” , this is not a variable but a string data type which contains value e, g, g, s.**

**100 is an integer data type which represents some value.**

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

**ten=10**

**int(ten)**

**10**

**float(ten)**

**10.0**

**str(ten)**

**'10'**

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

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

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

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