**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.**

**Values:** -87.8 , ‘hello’ , 6

**Expressions:** \* , - , / , +

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

**Ans.** Strings can not store values or data ,but variable are meant to store some sort of value or data. Strings can be defined as variable, to which a data can be allocated or stored.

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

**Ans.** We have large amount of data and this data have various types , this types of data are known as data types. Some of the data types can be defined as follows:

**Integer**: can hold numeric values without fraction points

**String**: sequence of characters, some characters written together to form a word

**Boolean**: have to values – True , False

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

**Ans.** Expression is a combination of operands and operators. Here operands can be variables or constants. Expression can have multiple operators. Expressions are executed to give some sort of result or value.

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

**expression and a statement?**

**Ans.** Statements are not evaluated to give values , whereas expressions give some sort of value in return when executed. Expressions are executed to change the value of a variable, statements can not the values of a variable as the didn’t have any return type. As the example says ,”spam = 10” here value ‘10’ is assigned to the variable “spam”. Here the line states that the value of the variable “spam” is 10, hence it is a statement. Let’s take another example “x = y + 3” here the value of x will change according to y , hence this is an expression.

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

**bacon = 22**

**bacon + 1**

**Ans.** bacon = 22

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

**‘spam’ + ‘spamspam’;**

**‘spam’ \* 3**

**Ans.** “spamspamspam” and “spamspamspam”

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

**Ans.** variable can not start with a numeric value, as ‘100’ start with ‘1’ which is a numeric value , hence it is invalid variable.

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

**version of a value?**

**Ans.** int(), float() and str() respectively.

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

**‘I have eaten’ + 99 + ‘burritos’**

**Ans.** concatenation of strings with integer is not possible. Can be fixed using type casting method , need to typecast integer ‘99’ into a string .Then the expression will look like:

‘I have eaten’ + str(99) + ‘burritos’