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.

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'hello' : Values

-87.8 : Values

- : Expression

/ : Expression

* : Expression

6 : Values

2. What is the difference between string and variable?

Ans: Variable is a reservation of memory to store values. Values can be integer, float , string, and double. Example:

A=122

B=55.56

C=”sharad”

String is a character type variable. String type variable store an array of characters.

Such as a=”xyz”. Here a stores a string type of value in a type of variable.

3. Describe three different data types.

Ans:

1. map type: Its combination of key and values. This will work only with key and value pair. Key can be of string, numeric or tuple, etc. and values can be any thing such as list, tuple, string, int, float.

2. numeric type: numeric type includes int, float, complex i.e., int=5, float=5.0 and complex= 5+j7

3. sequence type: it can be list, tuple and range. List can be mutable, however, tuple is not mutable

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

Ans: expression is made up of operator, literals, identifier. All expression process on operator, literals and identifier to give a value.

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

Ans:

Statement represent the action. Like 10 is being assigned to spam variable.

Expression evaluates to a values. Like (spam + 5)

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

bacon = 22

bacon + 1

It will contain 22. Because bacon is not modified. Its still 22 only.

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

'spam' + 'spamspam'

'spam' \* 3

Ans: ‘spamspamspam’

‘spamspamspam’

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

Ans: because variable name can only start with letter or underscore

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

Int()

Float()

Str()

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

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

It will show error because we are trying to concatenate string type variable (“I have eaten” and “burritos”) with integer type variable(99)

By change integer type variable to string type will work.

For example

'I have eaten ' + “99” + ' burritos.'

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