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 (Multiplication Operator)

'hello' - String

-87.8 - Float

- - Expression (Subtraction Operator)

/ - Expression(Division Operator)

* - Expression(Addition Operator

6 - Integer

2. What is the difference between string and variable?

Ans:

String :- String is a data type. It represent the collection values enclosed in single, double or triple double quotes.

Variable:- Variable is a container which store the data and its properties like memory location.

3. Describe three different data types.

Ans:

Int – It represent Integer values like 1,10,100

Bool - It represent Boolean values like True or False, 0 or 1

Complex - It represent the complex integer. Example 1+2j

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

Ans:

Expression is a combination of variables and operators. Expression is used to produce some sort of results.

For example:

1+2 is an Expression

3 is a result

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

Ans:

Assignment statements :-Assignment Statement used to store some value into the variable.

Expression:-

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

bacon = 22

bacon + 1

Ans:

23

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: Based on the documentation and instructions from python.org variable name will be start with a string or ‘\_’ underscore symbol. If we try to create a variable with integer name it throws syntax error.

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

Ans: Typecasting can be used to get the value

for Int : int()

for Float:float()

for String : str()

example:

1. int(12.43)==12
2. int("1234")==1234
3. float(123)==123.0
4. str(123)==’123’

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

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

Ans:

In this expression operands or 2 strings and one integer and one operator is ‘+’. This operator is used to addition for two integer values and concatenation for string values. But in this expression its used between string and integer for that it will raise Type Error.

To fix this convert integer into string by using str()

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