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.

\* - Ans: Multiplication Operator

'hello' – Ans: String

-87.8 – Ans: Float

- Ans: Subtraction operator

/ Ans: Division Operator

* Ans: Addition Operator

6 Ans: Integer

2. What is the difference between string and variable?

Ans: String is typed with quotes (‘ , ”) which is type of information that can be stored in Variable and Variable can be referred to any value or type whereas String is a constant.

3. Describe three different data types.

Text Type: str String is a data type which is used to describe word .

Numeric Types: int, float, complex .These are data types which is used to describe numbers in a different format.

Boolean Types : It is a data type which is used to represent the truth of an expression. It is either TRUE or FALSE.

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

An expression is a construct made up of variables, operators, and method invocations, which are constructed according to the syntax, that evaluates to a single value..

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

Ans: spam=10 is a statement where it is assigning a value to the variable, expressions are something which yields value by having combinations of operators and operands. In fact, expression is also a statement. Statement consists of all the line in the program.

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

bacon = 22

bacon + 1

By running the above code we get answer as 23 because it is incrementing the value of a variable temporarily. After that when we call bacon, it is returning as 22.

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

'spam' + 'spamspam' – Ans: ‘spamspamspam’

'spam' \* 3 Ans: ‘spamspamspam’

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

Ans: eggs is a valid variable name but 100 is not because variables cannot begin with a number, because number is a numeric data types, datatypes cannot be assigned as a variable. It gives syntax error “Syntax Error: can’t assign to literal.”

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

Ans: int()

Float()

Str()

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

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

Ans: Python will concatenate only similar data types so, in this case it is having integer in between so getting TypeError: can only concatenate str (not "int") to str

We need to add quote to ‘99’ so it becomes string and we can concatenate.

'I have eaten ' + ‘99’ + ' burritos.'

Ans: I have eaten 99 burritos.