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.

\* = An Expression

'hello' = Value

-87.8 = Value

- = An Expression

/ = An Expression

* = An Expression

6 = A Value

2. What is the difference between string and variable?

Ans: String is a sequence of characters denoted by a pair of matching single or double and sometime in triple quotes

Ex: “English”, “Python is best programming language for Machine learning”

3. Describe three different data types.

Ans: Data type is a set of values and a set of operators that may be applied to those values

The different types of data types are

1. Int ()
2. Bool ()
3. Float ()
4. Set ()
5. Tuple ()
6. List []
7. Dict {}

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

Ans : An Expression is combination of symbols or a single symbols that evaluates to a value

All expressions evaluate a line in which there are operators and operands

Ex: <=, >= : Logical Operator

+, - , / ,\* : Arithmetic operator

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

Ans: The Expression is the set of symbols that evaluates to a value whereas the statements are not compiled they are just instruction to the programmer.

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

bacon = 22

bacon + 1

bacon = 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?

Ans: eggs a variable any number or value or string can be stored with the help of an ‘=’ operator where as the value 100 is constant which cannot be changed.

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

Ans : The values of integer to be parsed through int() datatype, floating point number to be float(), and string can be defined by str and string needs to be in double/single quotes.

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

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

Ans : Only Strings can be concatenated where as concatenation can be done only on the same datatypes

The above Ex should be ‘I have eaten’+’99’+’burritos’.