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:

\* - Expression (Multiplication Operator)

'hello' - Value (String)

-87.8 - Value (Float)

- - Expression (subtraction Operator)

/ - Expression (Division Operator)

* - Expression (Addition Operator)

6 - Value (integer)

2. What is the difference between string and variable?

Ans: A variable is the name of the memory location to store a value and to manipulate it if needed.

String is a type of information and hold group of characters, symbols, numbers or combination of all.

Eg: X = “Hello 123”

X is a variable and “Hello 123” is a String.

3. Describe three different data types.

Ans: Python data types are classified as,

Text Type : str

Numeric Types: int, float, complex

Sequence Types: list, tuple, range

Mapping Type : dict

Set Types : set, frozenset

Boolean Type : bool

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

Ans: An expression is the combination of variable, operator, values and calls to function. An expression is evaluated as per the precedence of its operators

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

Ans: Expression is used for evaluation. It simply means that, to calculate or to solve the value of something.

A statement does something, like creating a variable or displaying a value, it only does whatever the statement says.

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

bacon = 22

bacon + 1

Ans: bacon will contain 22.

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

'spam' + 'spamspam'

'spam' \* 3

Ans: Both terms will ‘spamspamspam’

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

Ans: variable name should starts with character or underscore, so 100 is invalid variable name.

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()

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

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

Ans: Cannot concatenate string and integer together. To fix this expression, we can cast the integer value to string.

‘I have eaten ‘+str(99)+’ burritos.’