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

'hello' Value

-87.8 Value

- Expression

/ Expression

* Expression

6 Value

2. What is the difference between string and variable?

Variable- We store information in it which like a container.

Example- x=[1,2,3,4] here set of information stored into x

String -information which is store inside the variable

Example- (“Hello”) here hello will string

3. Describe three different data types.

* Integer – numerical data
* Float data-numerical with decimal data
* Categorical- character like alphabet

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

Expression is a combination of operators and operands.

* Constant expression- ex-x=1+5
* Arithmetic Expression: +,-,/,\*
* Integral Expression : Expression that produce integer result after all computation.
* Floating Expression: Expression which produce floating points number
* Relational Expression:=,>,<
* Logical expression : and , or , not
* Bitwise Expression : >>,<<
* Combinational expression :

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

* **Statement** is an instruction that the Python interpreter can execute.
* **Expression** is a combination of values, variables, operators, and calls to functions.

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

bacon = 22

bacon + 1

22

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?

* A variable name must start with a letter or the underscore character
* A variable name cannot start with a number
* A variable name can only contain alpha-numeric characters and underscores (A-z, 0-9, and \_ )
* Variable names are case-sensitive (age, Age and AGE are three different variables)

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.'

TypeError-It can fix by converting 99 which is in integer into str