1. In the below elements which of them are values or an operator? eg:- values can be integer or string and expressions will be mathematical operators.

\* : **Operator**

'hello' : **VALUE**

-87.8 : **VALUE**

- : **Operator**

/ : **Operator**

* : **Operator**

6 : **VALUE**

2. What is the difference between string and variable?

**ANS : String is a value assigned to a variable. It is static value within ‘ ’.**

**Variable is an empty entity to which we assign a value.**

**(A Variable is a store of information, and a String is a type of information you would store in a Variable. )**

3. Describe three different data types.

**ANS : Three different datatypes are :**

* **String : it’s an alpha-numeric value , anything within ‘’ can be a string. It can be a number, character or special characters.**
* **Interger : It is a numeric value which does not necessarily be in ‘ ’. It uses whole numbers.**
* **Float : any numeric value with decimal is float. Floats are used when more precision is needed.**

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

**ANS : An expression is a combination of values, operators , variables . An interpreter evaluates the expression to give result.**

**Expressions help solve the problem with these combinations.**

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

**ANS : Expression has operators and values to calculate result set whereas statement may or may not give final output as mathematical calculation. Interpreter reads statement as a string and does not modify anything. Whereas Expression changes the value as per the instruction.**

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

bacon = 22

bacon + 1

**Ans : bacon contains 22 as value.**

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

'spam' + 'spamspam'

'spam' \* 3

**ANS : 'spam' + 'spamspam' = spamspamspam**

**'spam' \* 3 = spamspamspam**

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

**Ans : Variable can be any string which can hold a value. 100 being an integer itself is a value so it can not hold anything else.**

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

**Ans : integer : int() , float : float() and string : str()**

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

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

**Ans : this expression causes an error because we are concatenating a string and an interger value 99.**

**This can be solved by putting integer 99 in ‘ ‘ , to read it as string. This will run the statement fine and concatenate 3 strings.**