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' - VALUES

-87.8 - VALUES

- EXPRESSION

/ - EXPRESSION

* -EXPRESSION

6 – VALUES

2. What is the difference between string and variable?

String- It is literally a text or Datatype which is enclosed in single quotes or double quotes or triple quotes too.

Eg: Code:

a=”This is a String”

type(a)

Output:

str

Variable – A variable is a name that can store values of any datatype. It can be str,int,float,bool,double.

Eg: Code:

a=”This is a String”

b=45.676

c=56

f=True

Here a,b,c,f all are variables

3. Describe three different data types.

The 3 different Datatypes are

* Integer
* Float
* String

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

The expression is a statement which leads us to a value or a Solution. In overall the expression is made of datatypes, values and functions.

The expression helps us in evaluating and gives us an USEFUL OUTPUT in other words, it returns a value.

Eg: a=(4+5)\*(14/7)+(25-5)

a

Output:

38

Here ‘a’ is a variable and the MATHEMATICAL OPERATORS \*,+,/,- are expressions which helps us in getting an output

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

An expression helps us in returning a meaningful Output. An expression is something that can be reduced to a value.

Eg: a= 4+5

a

Output:

9

A statement just executes and doesn’t returns anything or value. A Statement is a action or a command.

Eg: spam = 10

If (Spam>5):

Print(“hello”)

Here ‘Print’ is a STATEMENT which is evaluated based on the expression

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

bacon = 22

bacon + 1

Soln: 23

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

'spam' + 'spamspam'

'spam' \* 3

'spam' + 'spamspam' 'spamspamspam'

'spam' \* 3 'spamspamspam'

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

It is because a variable name must start with a letter or the underscore character

but cannot start with a number

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

integer int()

floating-point number float()

string str()

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

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

Because only Strings can be CONCATENATED.

Solution: 'I have eaten ' + ‘99’ + ' burritos.'

Output: 'I have eaten 99 burritos.'