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.

\*

'hello'

-87.8

-

/

6

Ans 1 : ‘hello’ , -87.8 , 6 are values.

\*, -, /, + are expression or operators.

2. What is the difference between string and variable?

Ans 2 : A string is a dat type where variable is used to store data of any data type. A string can have values as single character or multiple character and a string is represented by “ “. A variable can hold value of any data type, it can be string, integer, etc.

For eg : “yash” is string

var1 = “yash”

var1 is a variable storing a string data.

3. Describe three different data types.

Ans 3 : Three types of data types :

1. string data type : single or multiple character between “ ”. Can be any data . For eg: “yash”, “ya23sh”, “[y@sh2](mailto:y@sh2)”, etc.
2. integer data type : Represents only inetger data. For eg : -1323, 524, 435, -34534
3. Boolean data type : Represents the boolean data 0 and 1. Can have value only true and false.

True → 1

False → 0

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

Ans 4 : In python an expression is made of operators and operands.

For eg : 3 +4 = 7, here 3, 4 and 7 are operands and +, = are operators.

Expressions are used to produce some values.

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

Ans 5 : spam =10 is a statement.

Expressions are used so that a new value can be produced whereas in statement new value are not produced.

For eg : var1 = 7+8 => var1 = 15 (expression)

“var1 = 7+8” is a statement. The output will be “var1 = 7+8”

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

bacon = 22

bacon + 1

Ans 6 : bacon = 23

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

'spam' + 'spamspam'

'spam' \* 3

Ans 7 : 'spam' + 'spamspam' = ‘spamspamspam’

‘spam’ \*3 = ‘spamspamspam’

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

Ans 9 : According to definetion of variable, a variable name cannot start with a number, so eggs is a valid variable name and 100 is not valid variable name.

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

Ans 9 : consider a value : var1

integer = > int(var1)

Floating-point number => float(var1)

string => str(var1)

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

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

Ans 10 : The expression 'I have eaten ' + 99 + ' burritos.' has an error because we are trying to concatenate a integer value with string value.

The correct expression will be :

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