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?

Ans. Any value which is in text format under colons are strings. Variables are name given to values or values are stored under the name variable by calling variable we can reach to values.

3. Describe three different data types.

Ans. Below are the three different data types:

1. Integer eg: - 1,2,65 etc.
2. Float eg: - 2.1,3.4,2.0 etc decimal values are float data type.
3. Boolean eg: - True, False

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

Ans. Expression is made up of values which represent the values. Expression just represents the values. Like string is also an expression which holds a value.

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

Ans. Expression is representation of a value which doesn’t do anything just a representation while statements are logical instruction python interpreter which understand and executes a command like assigning a value to a variable and doing some operations.

In the above example spam = 10, spam is a variable which is assigned number 10 where ‘=’ sign is an expression which representing spam as 10.

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

bacon = 22

bacon + 1

Ans. bacon contain 23, as both the data is integer so mathematical operation happens.

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

'spam' + 'spamspam' → ‘spamspamspam’ #its concatenation of strings

'spam' \* 3 → ‘spamspamspam’ #its string multiplication

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

Ans. a variable name in python cannot starts with number.

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

Ans. int(), float(), ‘’ functions can be used to get these three version of a varaiable.

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

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

Ans. Because 99 is an integer and on same data type can be concatenated. To fix it we need to put 99 under colons to make it string value.

'I have eaten ' + ‘99’ + ' burritos.'

Output - 'I have eaten 99 burritos.’