1. In the below elements which of them are values or an expression? e.g.: - 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?

* String is a sequence of characters can be written in quotes such as “Shyam”, ‘Shyam’
* Variable is a thing where we can store data like container and we can also store string in a variable

3. Describe three different data types.

* + Integer(int) - It is the most common numeric data type used to store numbers without a fractional component (-707, 0, 707).
* String(str or text) - String is a sequence of characters can be written in quotes such as “Shyam”, ‘Shyam’
  + Boolean - It represents the values true and false. Sometimes a Boolean value is also represented as 0 (for false) and 1 (for true)

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

An expression is a combination of operators and operands that is interpreted to produce some other value. Example X = 10 + Z , (Z=8(given) for ex)

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

An expression is a combination of operators and operands that is interpreted to produce some other value and the statement is just like a command that a python interpreter executes like print.

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

bacon = 22

bacon + 1

Answer is 23

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?

Variables names always don’t start with any numbers in programming language, but we can use a letter and then number for example shyam08 as a variable name.

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

For integer we can use (int())

For floating point we can use (float())

For string we can use (str())

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

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

99 is not defined in this statement and as we saw earlier we cannot even have variable name starts with number. But the Main Reason is we cannot concatenate an integer with the string and we do typecasting if we want to. Maybe We can use it for example like 'I have eaten ' + str(count) + ' burritos.' Assume count = 99 or simply str(99) instead of count.