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' - value

-87.8 - value

- expression

/ - expression

+ - expression

6 value

2. What is the difference between string and variable?

String is a data type where information is stored in double or single quotes, where variable means assigning a value, like name= ‘mouli’. Here, name is the variable while ‘mouli’ is string.

3. Describe three different data types.

String is a data type where the value or information is store in single or double quotes. Example: ‘indu’, “how are you”.

integer is a data type which denotes whole numbers. Example 97, 56.45 etc

Boolean is a data type that represents the truth values it has only two possible values True or False. Example ‘mouli’== ‘mouli’ gives TRUE, 89==65 gives FALSE.

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

Expressions are combinations of values, variables, operators and also helps in calling a function. The expressions are evaluated by the compiler and interprets the results. Expression simply represents a value after execution.

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

Expression produces a value and can be assigned to different variables, while statement alone does nothing. When a series of expressions are given to statement, when arranged in order they can perform some action and produce some results.

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

bacon = 22

bacon + 1

the value remains 22 as we are not updating the bacon value again after addition

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

'spam' + 'spamspam' returns : spamspamspam

'spam' \* 3 returns : spamspamspam

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

The whole concept of variable is to assign a value. Which later describes the value present in it. Here if we check eggs=100 makes sense that no of eggs are 100, while 100=eggs doesn’t make any sense. Not only in such situations but many others. We can use combinations of integer and string but, string must be first. We cannot use special characters also.

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

Int(), float(), str().

If we want to take input from user we can use int(input()), float(input()), str(input()).

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

'I have eaten ' + 99 + ' burritos.' Because we can’t concatenate string with integer. So, we must concatenate like this 'I have eaten ' + ‘99’ + ' burritos.'