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 -

\* - expression

'hello' - value

-87.8 - value

- - expression

/ - expression

+ - expression

6 - value

2. What is the difference between string and variable?

ANS - A Variable is a store of information, and a String is a type of information you would store in a Variable.

3. Describe three different data types.

| **Data Type** | **Used for** | **Example** |
| --- | --- | --- |
| Integer | Whole numbers | 7, 12, 999 |
| Float (floating point) | Number with a decimal point | 3.15, 9.06, 00.13 |
| Character | Encoding text numerically | 97 (in ASCII, 97 is a lower case 'a') |

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

ANS - An expression is a combination of values, variables, operators, and calls to functions. Expressions need to be evaluated. If you ask Python to print an expression, the interpreter evaluates the expression and displays the result.

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

ANS - A statement is an instruction that the Python interpreter can execute. We have only seen the assignment statement so far.

An expression is a combination of values, variables, operators, and calls to functions. Expressions need to be evaluated. If you ask Python to print an expression, the interpreter evaluates the expression and displays the result.

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

bacon = 22

bacon + 1

ANS - it gives 23 as execution code.

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

'spam' + 'spamspam'

'spam' \* 3

ANS - it will be the same

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

ANS - because we can't start giving variable an integer name. if we, we should begin with, a string-like alphabet name then integer. e100 or eggs100 is valid.

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

ANS: str(), int(), float()

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

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

ANS - because 99 is an integer it cannot be concatenated with strings, if we have to concatenate it we need to do typecasting.