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?

    Variables are symbols that you can use to store data in a program.

    Strings are data, so we can use them to fill up a variable.

3. Describe three different data types.

1. **Integers**: Integers are whole numbers, without a fractional component. They can be positive or negative.
2. **Floats**: Floats represent real numbers and are written with a decimal point.
3. **Strings**: Strings in Python are sequences of character data.

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. In any programming language, an expression is evaluated as per the precedence of its operators.

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

Expressions can be assigned or used as operands, while statements can only be declared. Statements create side effects to be useful, while expressions are values or execute to values. Expressions are unique in meaning, while statements are two-sided in execution. Statements are the whole structure, while expressions are the building blocks.

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

bacon = 22

bacon + 1

After running the above code, the variable bacon contains the value 22.

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

'spam' + 'spamspam'   -   output - > spamspamspam

'spam' * 3   - output - > spamspamspam

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

Variable name must start with a letter or the underscore character, but not with a digit. 'eggs' is a valid variable name but 100 is invalid as it starts with a digit.

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

Integer   –   int()

Floating point –   float()

String   –   str()

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

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

```
Error- can only concatenate str (not "int") to str
```

We can concatenate only strings using "+" operator.99 is an integer. Hence we are getting the above error.