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: Variable is used to store an information(string,int,float,list,etc.) whereas string is an information to be stored in the variable.

3. Describe three different data types.

Ans: I) **Text-type**: It is used to store string data.

ii) **Numeric-type**: It is used to store integer,float and complex number as data.

Iii) **Boolean-type**: It is used to store Boolean value as data i.e True & False.

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

Ans: Expression is made up of operators and operands. Expression takes up value along with parenthesis if needed and the operators acts on it to provide the result of the expression.

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

Ans: Expression is a combination of variable,value and operator. Python will evaluate and provide result for it. e.g 2*2.

But statement is an instruction that python interpreter has to execute. e.g **print** statement

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

bacon = 22

bacon + 1

Ans: bacon will be 22 as we have not assigned the summation to itself. It would be 23 if bacon+=1

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

'spam' + 'spamspam'

Ans: `'spamspamspam'`

'spam' * 3

Ans: `'spamspamspam'`

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

Ans: Python has predefined format for assigning a variable I.e it can be a string,underscore but cannot be integers or a predefined functions e.g if,for,break,etc.

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

Ans: str() for string

int() for integers

float for floating-point nubers.

```
: a=10
  b=str(a)
  print(type(b),b)
  c=float(a)
  print(type(c),c)
  d=int(a)
  print(type(a),a)
```

```
<class 'str'> 10
<class 'float'> 10.0
<class 'int'> 10
```

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

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

Ans: Above expression throws an error because we are adding two different data types I.e string and integer. To fix it we have to convert the integer 99 into string type by putting it into single inverted comas or stating it as string type by str(99) .

'I have eaten ' + ‘99’ + ' burritos.'

'I have eaten ' + str(99) + ' burritos.'