1. In the below elements which of them are expression 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**: A data type that represents a sequence of characters. Eg “name”,”Email”

 **Variable**: A named reference to a value stored in memory. a=5

3. Describe three different data types.

int – int datatype is used to store Integer value e.g., a= 5  
float – float datatype store floating point value e.g., b=5.5  
string – sting datatype stores sequence of characters e.g., name=” Brijith”

4. What is an expression made up of? What do all expressions do?  
n expression is a combination of values, variables, operators, and functions that are evaluated to produce a value  
eg b=4\*2. Here 4\*2 is an expression

5. This assignment statements, like spam = 10. What is the difference between an expression and a statement?  
An expression always returns a value whereas a statement may or may not return a value   
eg a=4\*10   
 4\*10 is an expression and a=4\*10 isa statement

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

bacon = 22

bacon + 1

22  
the value wont change because we are not assigning or updating the value of bacon

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

'spam' + 'spamspam'

'spam' \* 3

spamspamspam

8. Why is eggs a valid variable name while 100 is invalid?  
variable names should not start with a number

9. What three functions can be used to get the integer, floating-point number, or string version of a value?  
int(), float(),str() are the functions to typecast the value to int ,float and string   
eg :  
 value = "3.6"

float\_value = float(value)  # Converts "3.6" to 3.6

float\_value

int\_value = int(float\_value)  # Converts 3.6 to 3 (truncates decimal part)

int\_value

Str\_value=str(float\_value)

Str\_value

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

'I have eaten ' + 99 + ' burritos.'  
here we are trying to concatenate two data types string and number which returns error . We need to convert 99 which is an integer to string either we can replace 99 with ‘99’ or write  
 'I have eaten ' + str("99") + ' burritos.'