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 -----------value

- ---------------expression

/ -------------------expression

+------------expression

6 -------------values

2. What is the difference between string and variable?

**ANS**: String is datatype which hold char data like alphabets, words.

variable is a place or location in memory which holds the value .it can be string or int anything.

3. Describe three different data types.

**ANS:**

**Int** -Int will hold all integer data. whole number including -ve & +ve. However, it does not hold fractional or decimal values.

**Dict**-Dictionary holds key value type pair data. All keys should be unique & immutable . Dictionary can be created by placing a sequence of elements within curly {}.

**List-**list is collection multiple heterogeneous & homogeneous data. Can be created with square bracket []. list can be updated

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

**ANS:** An expression in collection of operators & operands that is interpreted to some another value.

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

**ANS:** Expression is collection of operators like arithmetic, logical ,bitwise operators which gives you some another value whereas statement is action or command that has a effect.

Below are example which will easily differentiate expression & statement.

2 \* 2　　　　　　　 　#expression

print(2 \* 2)　　　　　#statement

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

bacon = 22

bacon + 1

**ANS:** Bacon will contain 22 but after running bacon+1 will be23

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

'spam' + 'spamspam'

'spam' \* 3

**ANS:** Both will give similar output i.e -spamspamspam 3 times spam

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

**ANS:** We can’t declare variable name which has only numbers like 100 that’s why it is invalid. However, we can use both number and character but start with letter eg. Eggs100.

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

**ANS:** Int(), float(), str()

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

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

**ANS:** In theabove statement 99 is integer so we can’t concatenate string with integer. That is why it cause an error to fix it we need to typecasting.

To typecast it the correct statement will be a=”I have eaten ”+str(99)+" burritos"