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

* : expression

6 :values

2. What is the difference between string and variable?

String is a datatype in python while Variable is used to hold the data

String is always written in ‘ ’ or “ “ while there is no specific syntax for variable

Whatever data is stored between “ ” or ‘ ’ will become string while whatever data can be assing to variable is will become that type of variable.

Ex: var1=”Muskan” or ‘Muskan’ ,here var1 is string

Var1= 467, here var1 is integer type of variable.

String is inbuilt class, while variable is object of the class.

3. Describe three different data types.

Numeric: this data type hold numeric value.

Ex: a=3735(integer)

B=78.98(float)

C=4+8j(complex)

Sequence: this datatype hold values in sequence .

Ex:

a=”Muskan” ,here a is string

b=[1,2,4,”abc”,”a”,89.7], here b is list

c=(“a”,1,2,3), here c is Tuple

Dictionary : Hold values in{ key:value }pair. Key should always be unique.

Ex: dic={“key1”:”Muskan”,”key2”:”a”,1:3}

Set: holds unique dataset.

Ex:(1,2,3,”a”)

Boolean: It hold True and False. With the help of bool datatype we can specify whether the given statement is True or False.

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

Expression is combinations of variables, operators which will give some value.

Ex:

a=10

b=10

c=a+c, here this line of code is a example of expression and it will give some value that is c hold 20.

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

Spam=10

This is command that spam variable will hold the value of 10. So its a statement.

Expression is combinations of variables, operators which will give some value.

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

bacon = 22

bacon + 1

bacom=23

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

'spam' + 'spamspam' : ‘spamspamspam’

'spam' \* 3 : ‘spamspamspam’

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

100 is integer value and integer cant be a variable while eggs is alphabetic so it can be variable.

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

Integer:int()

Floating-point number:float()

String:str()

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

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

Since we are trying to concatenate string with integer which is not possible.

String can be only concatenated with string.

It is suppose to be like this:

‘I have eaten’+”99”+’burritos’

Output:I have eaten99burritos.