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.

Ans:-

\* # expression used for the multiplication opration

'hello' # this is a string value

-87.8 # this is a integer value

- # expression used for the substraction opration

/ # expression used for the divission opration

* # expression used for the addition opration

6 # this is a integer value

2. What is the difference between string and variable?

Ans:- string is the data type which is a sequence of some charectors. It is implemented as any object containing word, alpha numeric carector, and number crector.

Variable is a name given to the memory location. It is pointer to the object or data(string, integer,floting number, etc)

3. Describe three different data types.

Ans:-

Integer:- it is the data type which implemented as number without decimal.(a=10)

Floting point number:- it is the data type which implemented as number with decimal.(a=10.0)

booleans:- it is True and False statement(t=true, F=false)

none:- The None keyword is used to define a null value.

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

Ans:- Expression is made up of operaters and operands.

All expression do some short of mathematical operation.

Eg:- a=20,

B=30

a+b-5

>>>45 # a,b and 5 are operands, ‘+’ is the operator, and a+b-5 is the expression.

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

Ans:- spam = 10

Spam+5 #this is expression

Print(spam) # this is statemen

Print(spam+5) # statement for dowing assignment.

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

bacon = 22

bacon + 1

Ans:- bacon contain integer value 22.

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?

Ans:-Variable name are permited to contain letter, number and underscore. It can not be start with number but it can be start with letter and under score.

Eggs start with letter so it is valid variable, while 100 start with number so not valid variable.

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:- TypeError: can only concatenate str (not "int") to str

Means addition operation is only possible in same type of data type, hear 99 is integer which can not be add with string.

Sol:- 'I have eaten ' + ‘99’ + ' burritos.'

It can be fix by representing 99 in string formate(syntax->’ ‘ or “ “).