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.

\* (=This is a expression)

'hello' (= This is a value)

-87.8 (= this is value)

- (=this is expression)

/ (=this is expression)

* (=this is a expression)

6 (=This is a value)

2. What is the difference between string and variable?

Ans-Variable is the data inside and the string is the data type of the data present

Example= string=’Welcome to c++’

Here string is variable and ‘welcome to c++’ is string data type

3. Describe three different data types.

Ans =Int for integer type data

float= for decimal values

string= for text data in strinbg format

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

Ans Expressions are a combination of constant, variable and operator.

Constant expressions= Which usually contain constants eg- x= 2+3

Arithmatic expressions= Contains variables and operators Eg= x=12,y=13 ,x+y=25

floating expressions= contains float values with operators Eg= x=20.3,y=15.4 ,x-y=4.9

Relational expression= Contains variables and relation operator Eg=

a=3 b=2

if a>b:

print(a)

Boolean Expression=The Boolean expression contains two states true or false

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

Ans statement only has information or value whereas expression contains constant,variables and operators.

Spam=10 is statement

spam\_1=spam\*3 is expression

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

bacon = 22

bacon + 1

Ans= bacon=23

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

'spam' + 'spamspam'

'spam' \* 3

Ans='spam' + 'spamspam'=’spamspamspam’ and 'spam' \* 3=‘spamspamspam’

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

Ans Eggs is proper variable name which can store value whereas 100 itself is a integer type value so it cannot be assigned as variable name.

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

Ans a=10

int(a)=10

float(10)=10.0

str(10)=’10’

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

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

Ans = 99 in between is int type so it wont concatenate with the string

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