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.

\*

'hello'

-87.8

-

/

6

Ans:-Among the above following it can be categorised into values and Expression as follows

Values-‘hello’, -87.8, 6

Expression-\*,-,/,+

2. What is the difference between string and variable?

ANS:-String can have alphabets ,letters or words. String always starts with quotes.

Variable –Variable has the property to take on any value.

3. Describe three different data types.

ANS-The three different data types are

a.Numeric-Consists of integer, floating points numbers.

b.String-Consists of letters and words

c.Boolean-Consists the value as either True or False.

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

Ans:-An Expression is made up of variables and operators. Expression always returns a value.

Expression always evaluates and produces a single value after being interpreted.

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

ANS:-Expression consists of variable and always returns a value whereas Statement consists of instructions that’s need to be executed by the machine. The instructions are given to the computer processor through a program. Statements doesn’t return a single value.

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

bacon = 22

bacon + 1

ANS-At first instance bacon holds the value as 22 and in second instance 1 is added to it.

So the final result consists bacon as 23.

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

'spam' + 'spamspam'

'spam' \* 3

ANS-When the above two expression are executed it will throw the result as-spamspamspam'.In the first example the string the added and in the second spam is repeated three time, so the result for both the cases will be same.

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

ANS:-Eggs is a valid variable whereas 100 is not valid as variable can be only alphabets, or words or can have any string but it can’t take integer or any special characters at beginning.

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

Ans:-To get the integer value int(),floating point as float() and for string str()

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

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

ANS:-The above expression will throw error as string can’t be added with integer. String can be added only with another string.

To fix this error 99 should be written in English alphabets which will act as a string and a complete sentence will be executed as ‘I have eaten ’+ ‘ninety nine’+’burritos’.

Other way is the use of typecasting the odd data type.In the above sentence 99 is an integer value whereas others are string.So 99 can be typecasted as str(99). ‘I have eaten ’+ as str(99)+ ‘ninety nine’+’burritos’.