1. What are the differences between operators and values in the following?

\* The asterisk symbol is used to multiply values

'hello' This represents the string datatype where the words defined between quotes

-87.8 This represents the float datatype

- This represents the substraction

/ This represents the division

+ This represents the addition

6 This represents the integer value

2. What is the difference between string and variable?

spam

'spam'

**ANS:** Variable that store the information and String is word/words enclosed in between the quotations (“”). Here spam is variable name that store the value and ‘spam’ indicates to string data

3. Describe three different data forms.

**ANS: Strings** are the sequences of characters using the syntax of either single quotes and double quotes.

**Lists** are ordered sequences that can hold a various object type. They use [] brackets and commas to separate objects in the list.

**Boolean** is an operator that allow you to convey True or False statements.

4. What makes up an expression? What are the functions of all expressions?

**ANS:** An expression is combination of values, operators and call to functions.

An Arithmetic expression evaluates to single arithmetic value.

A Character expression evaluates to a single value of type character.

A Logical or Relational expression evaluates to a single logical value.

5. In this chapter, assignment statements such as spam = 10 were added. What's the difference between a declaration and an expression?

**ANS:** Declaration mean binding variable to datatype .

Expression is combination of values and operators.

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

bacon = 22

bacon + 1

**ANS:** bacon contain 22 because bacon+1 has not reassigned

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

'spam' + 'spamspam' **output: ‘spamspamspam’**

'spam' \* 3 **output: ‘spamspamspam’**

8. Why is it that eggs is a true variable name but 100 is not?

**ANS:** Because in python variable name can start with an underscore or alphabet but it can start with number or number alone cannot be variable name. So eggs is a true variable name

9. Which of the following three functions may be used to convert a value to an integer, a floating-point number, or a string?

10. What is the error caused by this expression? What would you do about it?

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

**ANS:** Type error : str can concatenate with str not with int

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

print('I have eaten %s burritos.' %99.99)

print('I have eaten {} burritos.'.format(99.99))