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

\* - multiplication operator

'hello' - string value

-87.8 - float value

- - subtraction operator

/ - division operator

+ - addition operator

6 - integer value

Ans : Operators are used to perform operations on variables and values.

Values are the data which is assigned to variables

2. What is the difference between string and variable?

Ans: Variable is a name given to a memory location which store a value.

String is a sequence of one or more characters enclosed in single quote or double quote or triple quote.

spam is a variable

'spam' is a string

3. Describe three different data forms.

Ans : Python supports different types of data forms. Some are Numeric, String and List.

Numeric data types are used to hold numeric values.int, long, float and complex fall under Numeric data forms.

String data types are used to hold string values (sequence of characters).

List data types are to hold collection of ordered, mutable objects.

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

Ans: Expression is a combination of values, variables, operators and call to functions.

Expressions are used to specify some computation.

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

Ans: Declaration creates a space for a variable in programming language. But python is a dynamic-typed language which means that we don’t need to specify the variable type or declare variable before use it. In Spam =10 , python creates a space and store the value as 10 and name that location as spam.

Expression appears at the right-hand side of assignment statement. Interpreter evaluates the expression and display result.

In spam =10 , value at the right hand side is a simple expression.

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

bacon = 22

bacon + 1

x`

Ans : The variable bacon holds value 22 after running above code.

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

'spam' + 'spamspam'

'spam' \* 3

Ans : The values of following two terms will be ‘spamspamspam’

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

Ans : Because a variable name should start with a letter or a underscore , but not with number. So eggs is a true variable name but 100 is not.

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

Ans :

Int() – converts specified number or string value.

Float() – converts specified number or string value.

Str() – converts the given object to string.

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

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

Ans : TypeError: can only concatenate str (not "int") to str . we have to convert 99 to string by using str(99) built-in function.

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