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

**\***

**'hello'**

**-87.8**

**-**

**/**

**+**

**6**

( \* ) this is the multiplication operator in python .

( ‘hello’ ) this is a string .

( -87.8 ) this is floating value .

( - ) this is subtraction operator in python.

( / ) this is the division operator in python.

( + ) this is operator is used for addition or sum.

( 6 ) this is value and it’s type is ‘int’.

Operator: - Operators are special symbols in python that carry out arithmetic or logical computation.

Values: - is basic thing in programing we are using for our use.

**2. What is the difference between string and variable?**

**spam**

**'spam'**

String - string is type of information you would store in a variable.

Variable – A variable is a store of information.

**3. Describe three different data forms.**

1. Int – there is effectively no limit to how long an integer value can be. (e.g 24845)
2. Float – the float type in python designates a floating point number. Float values are specified with decimal point.
3. String – strings are sequences of character data. The string type in python is call str. String literals may be delimited using either single or double quotes.

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

An expression is a combination of values, variables, operator and calls to function. Expression need to be evaluated.

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

a declaration of a variable is where a program says that it needs a variable. The declaration give a name and a data type for the variable.

Expression are representations of value. They are different from statement in the fact that statements do something while expressions are representation of value.

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

**bacon = 22**

**bacon + 1**

bacon contain 23.

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

**'spam' + 'spamspam'**

**'spam' \* 3**

‘Spamspamspam’

‘spamspamspam’

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

Variable name cannot start with a number.

A variable name start with letter or underscore character.

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

Integer converted into float using float() function e.g float(24) = 24.0

Floating-point converted into integer using int() function e.g int(26.8) = 26

String converted into integer using int() function e.g int(‘123’) = 123 **(only number string are converted into int )**

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

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

Can only concatenate str (not “int”) to str

Converting 99 in string format

e.g print( ‘I have eaten’ + str(99) + ’burritos.’)