Q1. What are the differences between operators and values in the following?

*

'hello'

-87.8

-

/

+

6

Answer: In the above example, * is the multiplication operator. 'Hello' is a value of string data type. -87.8 is a negative integer. - is the subtraction operator. / is the division operator. + is the addition operator and 6 is integer value.
The operators perform an operation on the operands and values are stored in variables or literals.

Q2. What is the difference between string and variable?

spam

'spam'

Answer: A string is a value representing text and a variable is a name that can refer to any value. Quotes, double or single, (they mean the same, but can't be matched with each other) are used to create string literals, the quotes are there to indicate that the text that they enclose is not code, it is a value.

Q3. Describe three different data forms.
Answer: The three different data forms in python are: numeric data, string data and boolean data. The numeric data consists of integers, floating point numbers and complex numbers. The string data type contains a sequence of character data and is represented using "" or ''. The boolean data contains only 2 values i.e. true and false.

Q4. What makes up an expression? What are the functions of all expressions?
Answer: An expression is a combination of values, variables, operators, and calls to functions. Expressions need to be evaluated.

Q5. In this chapter, assignment statements such as spam = 10 were added. What's the difference between a declaration and an expression?
Answer: During a declaration, we pass a value directly into a variable. But in an expression, we calculate the results of some operation and then store the result into a variable. For example, x = 9 is a declaration because we are storing the value 9 in the

variable x whereas, x + 3 = y is an expression because we are calculating the sum of x + 3 and storing it to y.

Q6. After running the following code, what does the variable bacon contain?

bacon = 22

bacon + 1

Answer: In the above code, we are first assigning the value 22 to bacon and then incrementing it with 1. Thus, the value in bacon after running above code will be 23.

Q7. . What should the values of the following two terms be?

'spam' + 'spamspam'

'spam' * 3

Answer: 'spam' + 'spamspam' = 'spamspamspam'

'spam' * 3 = 'spamspamspam'

Q8. Why is it that eggs is a true variable name but 100 is not?

Answer: Because in Python, variable names cannot begin with number.

Q9. What three functions can be used to get the integer, floating-point number, or string version of a value?

Answer: To convert a value into integer, we need to use the int() function.

To convert a value into float, we need to use the float() function.

To convert a value into string, we need to use the str() function.

Q10. What is the error caused by this expression? What would you do about it?

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

Answer: The error that we will get ny this code is:

TypeError: can only concatenate str (not "int") to str

To overcome this error, I will have to typecast the statement.