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.

|  |  |
| --- | --- |
| \* | expression |
| 'hello' | Value |
| -87.8 | Value |
| - | expression |
| / | expression |
| + | expression |
| 6 | value |

2. What is the difference between string and variable?

String is type of information and variable is storage/ memory locations to store values of the information

Ex. a= “Welcome to xyz company”; a is a variable and ““Welcome to xyz company” is a string

3. Describe three different data types.

Python has five standard data types:

* Numbers
* Strings
* List
* Tuple

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

An expression is a combination of values and operators. All expressions evaluate to single value. So examples of expressions are :

* ‘Hello World’ - this is a string literal
* 23.6 - this is a floating point literal
* {1,2,3,4} - a set literal
* my\_func(1,2,3) - a function call (even if the function returns None)
* 2 + the\_number \* math.factorial(7) - a combination of literals, operators, identifiers and function calls

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

Ans) A statement is an instruction that the Python interpreter can execute  
examples are print and assignment

An expression is a combination of values, variables, and operators. If you type an expression on the command line, the interpreter evaluates it and displays the result:

>>> 1 + 1  
2

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

bacon = 22

bacon + 1

Ans) The value of bacon is 23

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

'spam' + 'spamspam' = spamspamspam'

'spam' \* 3 = spamspamspam'

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

Ans) Variable names should not start with a number.

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

Ans) The int(), float(),str() function will evaluate to integer, floating-point number, or string version of a value

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

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

Ans) The expression causes the error because 99 is an integer and only strings can be concatenated. The correct way of writing the expression is

“I have eaten” +str(99)+ ‘burritos’