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.

\* - expressions

'hello'-values

-87.8-values

- expression

/ expression

* expression

6 value

2. What is the difference between string and variable?

String- data type,it is a text value contained in quotes either singke or double; whereas

Variable -it holds the value of any data type like string ,bool,integer etc

Eg A=’vansh’

Here A is a variable and ‘vansh’ is a string

3. Describe three different data types.

Integer,float,string,bool

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

Expression only contain [identifiers](http://docs.python.org/release/2.5.2/ref/identifiers.html), [literals](http://docs.python.org/release/2.5.2/ref/literals.html) and [operators](http://docs.python.org/release/2.5.2/ref/operators.html), where operators include arithmetic and boolean operators, the function [call operator](https://docs.python.org/3/reference/expressions.html?highlight=subscriptions#calls) () the [subscription operator](https://docs.python.org/3/reference/expressions.html?highlight=subscriptions#grammar-token-subscription) [] and similar, and can be reduced to some kind of "value", which can be any Python object.

Arithmetic expression evaluates a value contains arithmetic operators like +-\*/

Comparison expression compares between two values like < > <= >= !=

Logical expression  like ! and or

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

Ans . Statements represent an action or command e.g print statements, assignment statements. Expression is a combination of variables, operations and values that yields a result value. An expression is a statement that returns a value.

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

bacon = 22

bacon + 1

Ans :bacon contain 22

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

Ans-

'spam' + 'spamspam'=’spamspamspam’

'spam' \* 3=’spamspamspam’

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

9. What three functions can be used to get the 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: ‘I have eaten’ and ‘burritos’ are strings where as 99 is int so it will cause error and concatenation wont happen

To fix this- we can write

‘I have eaten’+’99’+’burritos.’