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.

\*

'hello'

-87.8

-

/

6

Values : ‘hello’, -87.8, 6

Expression : \*, -, /, +

2. What is the difference between string and variable?

String is the collection of characters.

variable is symbolic name of storage location where values can be stored.

3. Describe three different data types.

* Numeric data types: int, float, complex.
* String data types: str.
* Sequence types: list, tuple, range.
* Binary types: bytes, bytearray, memoryview.
* Mapping data type: dict.
* Boolean type: bool.
* Set data types: set, frozenset. Python Numeric Data Type.

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

Expression is made up of operator and operands, where operator is in between two operands. Expression evaluate the single value.

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

Spam = 10 value is assigned to variable spam that’s whys it is assignment statement, not a expression because it is not evaluating any value.

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

bacon = 22

bacon + 1

22

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

'spam' + 'spamspam' -> ‘spamspamsspams’

'spam' \* 3 -> ‘spamspamsspams’

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

Variable name must start with character. Variable eggs has first character while variable 100 has a number.

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

 int() , float() , and str( )

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

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

Int can only concatenate str (not "int") to str

Integer cant not be concatenated in between two strings.

Solution we need to convert the 99 to string.

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