**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

**Ans.**

| Sr.no | Operators | Type of Element | Type of operators ( |
| --- | --- | --- | --- |
| 1 | \* , - , / , + | Expressions | Mathematical or Arithmetic  operators |
| 2 | 'hello' | Value | String (str) |
| 3 | -87.8 | Value | Float (float) |
| 4 | 6 | Value | Integer (int) |

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

Ans.

Variable are used to store values of any data types. Variables are reference to values that are assigned to it. You can say variables are identifier to values.

String is one of the data type which stores for sequence of characters. strings are immutable ,ie, elements of strings can not be changed once defined. strings can be sequence of numbers or alphabets or some special characters.

**3. Describe three different data types.**

Ans.

1. String (str) : these are set of sequence of characters which can be alphabets or numbers with some special characters, enclosed in “ “ or ‘ ‘ .
2. Integer (int) : simple numbers without decimal points.
3. float(float) : numbers with decimal points.

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

Ans. Expressions are made up of operators and operands. Expressions are supposed to produce some values which can be useful to perform operations.

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

Ans.

**Expression** is piece of code that returns new value created by performing some operations using operators and operands.

**Statement** is piece of code that tells computer to do certain task which does not return anything.

Ingenral, result of your code , can be print or assigned to variable its expression , if not its statement.

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

bacon = 22

bacon + 1

Ans. 22

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

'spam' + 'spamspam'

'spam' \* 3

Ans.

‘spam’ + ‘spamspam’ b

output : ‘spamspamspam’

‘spam’ \* 3

output : ‘spamspamspam’

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

Ans. Variable name can not be started with numbers.

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

Ans.

Integer : int()

Float : float()

String : str()

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

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

Ans.

Ans. 99 is of integer data type. Arithmetic operations can not be performed with strings and integers. Only addition + is allowed between string data type.