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:**

'hello'

-87.8

6

2. What is the difference between string and variable?

**Ans:**

|  |  |
| --- | --- |
| String | Variable |
| * String comprised of a set of characters that can also contain spaces and numbers. * A thing which is present within single or double quotes is a string. * Eg: ‘Sourav’, ‘567’ etc. | * We can imagine variable as a storage which stores one value or a set of values. * Variable can be defined by putting any alphabet/word (not key words of the domain language) or combination of alphabet/word and numbers(alphabet/word at the first place and no space between them). A combination of alphabet/word(also with numbers) with \_ can be also used in defining a variable just the variable should not end with \_ . * Eg: srv, Srv98, SoR\_56 etc. |

3. Describe three different data types.

**Ans:**

**Integer:** any numeric variable will come under this data type. We can do mathematical operations with them.

**String:** any type of letters, numbers, and symbols which is enclosed in single or double quotes.

**Boolean:** it consists of two value 0 and 1 or more precisely False and True. 0 means False and 1 means True.

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

**Ans:**

An expression is made up of data type values and operators. An expression is a combination of operators and operands that is interpreted to produce some other value.

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

**Ans:**

An expression gets evaluated and provides you a single value while a statement is just a some texts written in single or multiple lines and can’t get evaluated to a single value.

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:**

‘spamspamspam’

‘spamspamspam’

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

**Ans:**

eggs is a word and it is not a key word hence it’s a valid key word. 100 is just a number so it’s a value and it can’t be a variable.

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

**Ans:**

int(), float() & str()

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

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

**Ans:**

'I have eaten ', ' burritos.' Are of str data type but 99 is of int data type so yhere is an error.

We can use 'I have eaten ' + ‘99’ + ' burritos.' to fix the problem