Assignment no-1

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- \* - It is an expression

‘hello’ – It is a value

* It is a mathematical expression

/ - It is a mathematical expression

+ is an expression

6 – It is value

2. What is the difference between string and variable?

Ans- **A Variable is a store of information, and a String is a type of information you would store in a Variable**

. A String is usually words, enclosed with "" Example String x ="Welcome to India" X is the Variable, and we declared it as a String, use the single = to assign the text to it.

3. Describe three different data types.

Ans-

|  |  |  |
| --- | --- | --- |
| **Data Type** | **Used for** | **Example** |
| Integer | Whole numbers | 7, 12, 999 |
| Float (floating point) | Number with a decimal point | 3.15, 9.06, 00.13 |
| Character | Encoding text numerically | 97 (in ASCII, 97 is a lower case 'a') |

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

Ans- An expression is a combination of **variables, operators, and method invocations**, which are constructed according to the syntax of the language, that evaluates to a single value.

In any programming language, an expression is evaluated as per the precedence of its operators.

5. This assignment statements, like spam = 10. What is the difference between an

expression and a statement?

Ans- An “expression” is a combination of values and functions that are combined and interpreted by the compiler to create a new value, as opposed to a “statement” which is just a standalone unit of execution and doesn't return anything.

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

bacon = 22

bacon + 1

Ans- The bacon variable is set to 20. The bacon + 1 expression does not reassign the value in bacon (that would need an assignment statement: bacon = bacon + 1).

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

spam + spamspam

spam\* 3

Ans- Both expressions evaluate to the string 'spamspamspam'

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

Ans- The name of variables cannot begin 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(), and str() functions will evaluate to the integer, floating-point number, and string versions of the value passed to them.

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

‘I have eaten’+ 99 + ‘burritos’

Ans- The expression causes an error because 99 is an integer, and only strings can be concatenated to other strings with the + operator.