1. In the below elements which of them are values or an expression? e.g.:- values can be integers or strings and expressions will be mathematical operators.

\*

'hello'

-87.8

-

/

6

Answer 1). Values = ‘hello’, -87.8, 6.

Operators = \*, -, ?, +.

Expression = \*, -, ?, +, hello’, -87.8, 6.

2. What is the difference between string and variable?

Answer 2).

|  |  |
| --- | --- |
| Variable | String |
| Variable or identifier stores different types of information or data in the form of numbers, string, lists, and tuples. | A string is a continuous set of characters of information that is stored in a variable under quotations. |

3. Describe three different data types.

Answer 3) There are multiple datatypes like Numeric, String, Sequence, Binary, set etc.

|  |  |  |  |
| --- | --- | --- | --- |
| Data Type | Numeric | String | Tuple |
| Definition | It includes numeric values | Set of characters that are presented in quotations | A tuple is a sequence data type that stores different datatypes like int, float, string, etc. |
| example | a = 1, b = 1.11,c = 3.14i etc. | Name = ‘Hello, my name is SIMMI’ | Tup = (“Simmi”, 11, 23.5) |
| Types | Int, long, float, complex |  |  |

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

Answer 4). An expression is made up of variables, operators and operands. Operators are symbols that assign a function and operands are the values on which the operator acts and variables store the data. Ex - sum = 5 + 10, here, sum is a variable, 5 and 10 are operands, and ‘+’ is an operator.

All expressions produce some value after being interpreted by python interpreter.

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

Answer 5).

|  |  |
| --- | --- |
| Expression | Statement |
| An expression is made up of variables, operators and operands. Operators are symbols that assign a function and operands are the values on which the operator acts and variables store the data. All expressions produce some value after being interpreted by python interpreter. | A statement is the smallest executable unit of code that creates a variable or displays a value. Every line of code that is written in a programming language is called a statement because all lines are executable by the interpreter. |
| EX –  x = 5 y = 6  Sum = x + y  Here, x , y and sum are variables, 5 and 6 are values/operands and + is operator. | Ex-  Spam = 10  print(Spam)  Here, first line is assignment statement that gives value to spam. And second line is print statement that displays value of spam. |

Rest of the answers are in ipynb file name Assignment\_1\_Simmi.