PYTHON ASSIGNMENT - 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

ANSWER:  
Value - -87.8, 6, hello

Expression: \*, -, /, +

2. What is the difference between string and variable?

ANSWER:

A string is a sequence of characters enclosed within single (' ') or double (" ") quotes, while a variable is a placeholder for storing data of various types.

3. Describe three different data types.

ANSWER:

Integer: Whole numbers without decimals (e.g., 5, -10)

Float: Numbers with decimals (e.g., 3.14, -0.5)

String: Sequence of characters enclosed in quotes (e.g., "hello", 'world')

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

ANSWER:

An expression consists of operators and operands, where operators perform operations on operands. Expressions evaluate to a value

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

ANSWER:

An expression evaluates to a value, while a statement performs an action. For instance, in the assignment statement "spam = 10", "spam" is a variable, and "10" is a value assigned to it; the entire line is a statement.

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

bacon = 22

bacon + 1

ANSWER:

22

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

'spam' + 'spamspam'

'spam' \* 3

ANSWER:

spamspamspam

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

ANSWER:

A variable cannot start with a number.

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

ANSWER:

int(): to convert a value to an integer

float(): to convert a value to a floating-point number

str(): to convert a value to a string

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

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

ANSWER:

By converting 99 from int to a string

'I have eaten ' + ‘99’ + ' burritos.'