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

\*

'hello'

-87.8

-

/

6

Ans: - Expressions are \*, -, /, + and Values are ‘hello’, -87.8, 6

2. What is the difference between string and variable?

Ans: - string is an iterable data type object whereas variable is a placeholder object.

3. Describe three different data types.

Ans: - 1) non-iterable data type objects like int, double

2) Iterable data type objects like string

2) collection data type objects like list, tuple, set, dictionary

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

Ans: - Expression is made up of mathematical operators to impose rule/conditional statements that includes assignment variables at its both sides. All expressions will return boolean output when used in looping constructs that helps in decision making for further processing based on rule imposed.

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

Ans: - In spam = 10, “=” operator refers to expression and when “spam=10” used within loop

Constructs like if-else, while, for, etc refers to statement that returns boolean output which takes decision on further processing.

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

bacon = 22

bacon + 1

Ans: - 23

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

'spam' + 'spamspam'

'spam' \* 3

Ans: - ‘spamspamspam’ and ‘spamspamspam’ (same result for both)

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

Ans: - variable name cannot start with numeric characters or literal numbers

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

Ans: - int (), float (), str () can be used for integer, floating-point number, or string version of a value

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

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

Ans: - Reason for error is string data type cannot be concatenated with integer data type.

Solution: - ‘I have eaten’ + str (99) + ’burritos.’ (Typecasting integer 99 into string data type).