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-**

**VALUES: 'hello', -87.8, 6**

**Expressions: \*, - , / , +**

2. What is the difference between string and variable?

**Answer: A Variable is where we store the information, and a String is a type of information that we can store in a Variable it is mainly a sequence of characters.**

3. Describe three different data types.

**Answer:**

**1. Numeric data types: It involves numeric data e.g - int, float**

**2. String data types: str**

**3. Sequence types: list, tuple, range**

**4. Mapping data type: dict**

**5. Boolean type: bool**

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

**Answer: An expression is a combination of operators and operands that is interpreted to produce some other value which can be called a result or output. 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?

**Answer: An expression evaluates to a value. A statement is an instruction that the Python interpreter can execute.**

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

bacon = 22

bacon + 1

**Answer: 23**

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: Variables should be characters or groups of characters for example eggs, since 100 is a numeric value, it is invalid as a variable.**

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

**Answer: int(), float(), str()**

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

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

**Answer:**

**While operating string concatenation all operands must be string data types since 99 is an int data type it will show us the error.**

**We can fix it by converting an integer into a string simply by putting inverted commas like below**

**‘I have eaten’ + ‘99’ + ‘burritos’**