

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

Sol :- Values —> 'hello' , -87.8 , 6

Expressions —> * - / +

2. What is the difference between string and variable?

Sol :- String is form of Text or words and the variable is something that stores the data like int, float, string etc., Variable can be modified or reassigned.

3. Describe three different data types.

Int :- An integer is a number that can be positive, negative or zero

String :- It is the literal text or words. Numbers can also be converted into text by adding quotes to them.

Boolean :- It is the classification of the question whether it is “ True “ or “ False “

Float :- It contains the decimal format of numbers that are not integers like 10.23, 100.00 etc.,

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

Sol : - An expression is a combination of Operators, Variables and Function Calls. An expression is the representation of values.

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

Sol :- Expressions are the representation of values whereas statements are the combination of multiple expressions. Here the expression 10 is assigned to a variable spam. Statements cannot print a value but expressions can print.

Anything that evaluates to something is called expression and anything that does something is an statement.

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

```
bacon = 22
```

```
bacon + 1
```

Sol :- Bacon contains 22

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

```
'spam' + 'spamspam'
```

```
'spam' * 3
```

Sol :- Both the expressions gives the same value ' spamspamspam '

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

Sol :- Variable names cannot start with integers but they can end with integers. So the eggs and eggs100 can be a valid variable name but not 100.

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

Sol :- `int ()`, `float ()`, `str ()`

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

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

Sol :- Python cannot concatenate strings with integers so we must convert the integer to string. Answer is 'I have eaten ' + '99' + ' burritos.'

