

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

Ans:

'hello', -87.8 and, 6 is a value.

*,/, -, + is an expression

2. What is the difference between string and variable?

Ans: Variables are the containers of an information for eg. A = 2 and, string can itself be an input to a variable like a = 'hello'.

3. Describe three different data types.

List: it is a collection of homogeneous elements.

Dictionary: it is key value pair where the values can be accessed by calling the key.

Tuples: Tuple is also a collection of homogeneous element but once it is defined it cannot be manipulated in run-time.

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

Ans: An expression consist of a value and a governing operator which associates a value with another value with its purpose for eg. A = 5 + 5 where 5 is a value and + is an operator which tells the compiler to add the elements present on the LHS and RHS of the operator.

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

Ans: Assignment is responsible for assigning the values and expression is consist of values and operators.

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

```
bacon = 22
```

```
bacon + 1
```

Ans: After running the code bacon will contain 22.

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

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

```
'spam' * 3
```

Ands: spamspamspam will be the values for the above terms.

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

Ans: eggs can be treated as a container which can contain a value but 100 itself is a value hence it can't be used as container.

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

Ans: This procedure is known as casting where, int() will be used to get integer, float() will be used to get the floating-point number and, string() will be use to get string version of a value.

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

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

The given expression can be rectified using str() function:

```
'I have eaten ' + str( 99) + ' burritos.'
```

As the compiler cannot concatenate string and integers we need to do this.