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.

ANSWER:

* = multiplication operator

'Hello' = String

-87.8 = Float

= subtraction operator

/ = division operator

+ = Addition operator

6 = integer

2. What is the difference between string and variable?

ANSWER:

String are collection of character in double cots or single cots

EG: 'syed'

Variables are names which contain some data type values like Integer, string, float, list etc..

EG: a=10, b='name', c='20.5'

3. Describe three different data types.

ANSWER:

integer: 12

String:"name"

Float :20.6

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

ANSWER:

"expression" is a combination of values and functions that are combined and interpreted by the compiler to create a new value

Expression made up of some arithmetic operator which can perform addition, subtraction, multiplication, division

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

ANSWER:

expression is a combination of values and functions that are combined

EG: a=10+5*2 it make some calculation and assign the value to "a"

Statement is just a value is assigned to a variable Name like

EG: spam = 10 is just 10 assigned to the 'spam' variable

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

bacon = 22

bacon + 1

ANSWER:

First 22 is assigned to "bacon" and then bacon is added with 1

So variable bacon contain=23

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

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

```
'spam' * 3
```

ANSWER:

- 1. 'Spamspamspam'
- 2. 'spamspamspam'
- **8**. Why is eggs a valid variable name while 100 is invalid?

ANSWER:

Egg a valid variable name because we have to use string or some special character like _ to create a variable name.

While 100 is an integer so we can not use as a variable

So we can use "egg100" it is valid variable.

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

ANSWER:

1.int()

2.float()

3.str()

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

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

ANSWER:

Because we can only join the same data type value using + operator . it can be fixed

By changing the code slightly 'I have eaten ' + '99' + ' burritos.'