

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.

\* : expression

'hello' : values

-87.8 :values

- : expression

/ : expression

+ : expression

6 :values

2. What is the difference between string and variable?

ans: variable is can be any value but string defines the specific value of an variable using a single = to assign the value in it

3. Describe three different data types.

ans: 1. boolean type : can only takes the values True(1) and False(0).denoted by bool

2.numeric type : they contain integers(int), decimals(float), complex numbers(complex).

3.text type: it contain numbers or characters . its denoted by string(str)

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

ans: an expression is a combination of operators , constants , variables .

an expression is an instruction that combines value and operators and always evalutes down to a single value .

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

ans: expression is made up of values , containers and operands (expression = "=")and on the other hands statements is just like a command that a python interpreter executes like (spam=10).

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

```
bacon = 22
```

```
bacon + 1 = 23
```

ans : 23

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

```
'spam' + 'spamspam' = 'spamspamspam'
```

```
'spam' * 3 = 'spamspamspam'
```

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

ans : because we can't assign a numeric name to a value. its shows cannot assign to literal error in it

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

ans: the int() , float() , str() function will evaluate to the integer , floatingpoint number and string version of the value passed to them .

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

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

ans : this expression shows "can only concatenate str (not "int") to str" this error because integer is not in double quotes .

we can fix it by this:- 'I have eaten' + '99' + 'burritos'