

**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.**

Ans :- \* :- Expression  
hello :- Values  
-87.8 :- Values  
- :- Expression  
/ :- Expression  
+ :- Expression  
6 :- Values

**2. What is the difference between string and variable?**

Ans :- A string is value enclosed with in a single quotes, double quotes, or triple quotes(For multi line strings) where as variables which holds the value or in which the variables are assigned

Ex:- x='Hello' or y=22 where x and y are variables and 'Hello' and 22 are values where 'Hello' is a string.

**3. Describe three different data types.**

Ans:- The three types of data types are :- String, Integer, Bool

String :- These are the data types which are enclosed in a single quote, double quote or triple quote.

Integer :- These are the numeric values which can be negative numbers or positive numbers or 0.

Boolean :- These are nothing but True or False i.e 0 and 1

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

Ans:- Expression are mathematical operator like + - \* / etc. They are assigned with specific tasks like + is addition of two numbers of strings. - is for subtraction, \* is used for multiplication and / is for division. In mathematical terms expression is like a+b where we have operators and operands at the same time.

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

Ans:- Expression must have at least two or more operators whereas = is an assignment operator so this is a statement instead of expression.

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

**bacon = 22**

**bacon + 1**

Ans:- bacon contains 23 after the code is executed

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

**'spam' + 'spamspam'**

**'spam' \* 3**

Ans :- The result is going to be same for both of them i.e. 'spamspamspam'

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

Ans:- This is the inbuilt of python that it allows a string to be a variable and int not to be also the reason maybe that a variable can be assigned with any value whereas a constant can be assigned as it already has a fixed value.

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

Ans:- int(x), str(x), float(x) to check the type we can do type(x) but string can't be converted to float or int as it shows value error.

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

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

Ans:- string can't be concatenated with integer. To fix it we can remove the int part and write the code as **'I have eaten'+'burritos.'**