**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.**

\* - Operator

'hello' - Value

-87.8 - Value

- -Operator

/ -Operator

6 - Value

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

String is group of characters. It could be group of numbers, alphabets, (basically array of characters)

Variable – It is the local/global instance to store the data.

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

Integer – Example 20 (Whole numbers)

Float – Example( 45.32- Decimal Number )

Boolean – True / False

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

Expressions are made up of operators and operands, combination of variables, values etc.

Expressions provide results when we execute it.

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

Statement: Statements are instructions to be executed ( action or command)eg:- Print statement, assignment statement

Expression : Made up of operators,operands, variables, and will provide results which is value.

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

bacon = 22

bacon + 1

**Answer:** Bacon contains 22 .

Bacon + 1 does not change the value of bacon as it is not assigned back to bacon value.

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

'spam' + 'spamspam'

'spam' \* 3

**Answer**: Both produces same output- 'spamspamspam'

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

**Answer**:Because eggs – is a group of letters -(Can be a valid variable name)

But 100 – is a number- Variable name can not start with numbers

Example :

Abc1 can be a variable name.

1abc – can not be a variable name.

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

**Answer with an Example :**

a = input("Enter a Value")

print("Integer value of an obtained value is",int(a))

print("Float value of an obtained value is",float(a))

print("String value of an obtained value is",str(a))

**Output:**

Enter a Value20  
Integer value of a obtained value is 20  
Float value of a obtained value is 20.0  
String value of a obtained value is 20

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

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

**Answer**:

Error if we execute the above code : we get -TypeError: can only concatenate str (not "int") to str

Reason: We can not concatenate different datatypes. If we still want to do we should change to same datatype. Here it can be done like below.

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

Output : 'I have eaten99burritos.'