**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**. Value🡪 ‘hello’, -87.8 , 6

Expression🡪\* , - , / , +

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

**ANS**. A variable is type of container that holds some data with it and it is given a name to access that particular data. String is nothing but a type of data that can is used to fill up the variable.

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

**ANS**. **int**🡪 used to store integer values ranging from -2147483648 to 2147483647

**Float🡪** used to store decimal numbers. Eg 49.5

**Complex🡪** used to store complex numbers. Eg 49+5j

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

**Ans**. An expression is a combination of operators and operands that produces some other value.

Eg.2+4 = 6 , + is an operator and 2,4 are operands.

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

**Ans**. An “expression” is a combination of values and operators that are combined and produces a new value, as opposed to a “statement” which is just a standalone unit of execution and doesn't return anything**.**

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

bacon = 22

bacon + 1

**Ans.** bacon=23

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

'spam' + 'spamspam'

'spam' \* 3

**Ans.**  Both the terms provide a similar output i.e. **spamspamspam**

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

**Ans.** There are rules to write variable name in which one is that a variable name cannot be a number. Hence 100 is invalid.

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

**Ans.** The int() , float() , and str( ) functions will evaluate to the integer, floating-point number, and string versions 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.** The error is there because we are try to use String and Integer data types together to overcome this problem we need to convert integer to string which is known as type casting.

It can be done in following ways:-

'I have eaten ' +’ 99’ + ' burritos.' 🡪 enclosing 99 in ‘ ‘

Or

'I have eaten ' + str(99) + ' burritos.' 🡪 type casting 99