

QUESTION NO : 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.

Answer: There are 4 expression and 3 values  
Values are: ('hello', -87.8, 6) expression: (\*, -, /, +)

QUESTION NO 2: What is the difference between string and variable?

Answer : A Variable is the location name in the memory that stored the data, and A String is a group of a character or a single character usually enclosed in Double quotes "" or single quotes ''

QUESTION NO :3 Describe three different Data Types ?

Answer: Three fundamental Data types in python are int, float, complex. int data type: We can use int data type to represent whole numbers (integral values) float data type: We can use float data type to represent floating point values (decimal values) complex data type: Complex number is represented by complex class. It is specified as (real part) + (imaginary part)j. Example for int data type int\_num=45 Example for float data type flo\_num=1.7 Example for Complex data type com\_num=100+2.5j

QUESTION NO :4 What is an expression made up of , What do all expressions do?

Answer : An expression is a combination of values, variables, operators, and calls to functions.

QUESTION NO :5 This assignment statements, like spam = 10. What is the difference between an expression and a statement?

Answer: An expression is a combination of values, variables, and operators. A statement is an instruction that the Python interpreter can execute.

QUESTION NO : 6 After running the following code, what does the variable bacon contain? `bacon = 22  
bacon + 1`

Answer: The variable bacon contain 22. if the expression be like in the form `bacon=bacon+1` than it will return 23.

QUESTION NO: 7 What should the values of the following two terms be? `'spam'+'spamspam'`  
`'spam'*3`

Answer: Both expressions evaluate to the string 'spamspamspam' Where as the first expression follows String Concatenation and the second expression follows String Multiplication

QUESTION NO 8. Why is eggs a valid variable name while 100 is invalid?

Answer: As per python, Variable names cannot begin with a number. The python rules for naming a variable are :- Variable name must start with a letter or the underscore character. Variable name cannot start with a number. Variable name can only contain alpha-numeric characters and underscores (A-z, 0-9, & \_).

QUESTION NO : 9 What three functions can be used to get the integer, floating-point number, or string version of a value?

Answer: The `int()`, `float()`, and `str()` functions will evaluate to the integer, floating-point number, string version of the value passed to them.

QUESTION NO :10 Why does this expression cause an error? how can you fix it? `'I have eaten ' + 99 + 'burritos.'`

Answer : This cause of error is 99. because 99 is not a string. 99 must be typecasted to a string to fix this error. the correct way is: Input: `'I have eaten ' + '99' + 'burritos.'` Output: `'I have eaten 99 burritos.'`