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.

\* (Mathematical Expression)

'hello' (Value)

-87.8 (Value)

- (Mathematical Expression)

/ - (Mathematical Expression)

* (Mathematical Expression)

6 (Value)

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2. What is the difference between string and variable?

Ans=> String is the sequence of character but the character in String is immutable.

Variable is the container the store the data of any type in python we can change the value of variable.The assignation of which is represented by the by any name of (a-z,A-Z,\_ and digit except the name should not be start with the digit)

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3. Describe three different data types.

Ans=> 1)int 🡪 In this datatype the integer value are comes. For example a=2, b=3

2) List 🡪 The list datatype is the ordered collection of item which is mutable and list can contains the data of homogeneous type. For example fruits=[“Banana”, “Oranges”, “Cherry”]

3) String 🡪 The String datatype is the group of character and its has the index position like list but the character of String is not changeable .for Example string1=”Rohit Bhalode” .

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

Ans 🡪 Expression is combination of variable and operators to produce the some value. There are different type of expression in python.

Constant Expressions : In this expression the constant values only. For Example # Constant Expression x=1.4+1 print(x) Arithmetic Expression: Arithmetic expression is a combination of numeric values, and operator and some mathematical expression like Addition, Subtraction, Multiplication , Division, Quotient, Remainder, Exponentiation.

Integral Expression : In this expression only produce the integer results

For Example :

a=1

b=34.0

c=a+ int(b)

print(c )

Floating Expression : This is similar to integral expression produces the floation expression.

Relational Expression : In these expression the relational operator are used and on the both side of that operator the arithmetic operation are perform .

Logical Expression : These kind of expression only True or False result comes. It specifies the conditions . because the here logical operators are used i.e. and , or and not .

Bitwise Expression: These expressions are used at bit level.

Combinational Expression: In these expression combination of more than single expression are used .

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

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

bacon = 22

bacon + 1

Ans 🡪 the bacon will not change because the values which we are incrementing by 1 is not assigning to bacon so bacon will be remain as it is.

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 🡪 egges is valid variable name because in python variable name can be made up of English aphabet character ,underscore and it can contain digit but except it should not start with digit so that 100 is not valid variable name.

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

Ans🡪 for getting the integer type of value we just have to put that value in this int(value). Same for floating point number float(value).

But for string it is direct come as in the form of string so we don’t need to do anything to that.

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

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

Ans🡪 In this expression there is data type error comes because here string are trying to add with integer to fix this error we have to make integer into string.

‘I have eaten’ + str(99)+’burritos.’