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**:

‘hello’(string) and -87.8(float) 🡪 values , (\*, -, /, +)->operators

2. What is the difference between string and variable?

Ans: String is the combination of words within double quotes(“apple”)/single quotes(‘apple’) or triple quotes(“”” black apple “””), some integer numbers can be considered as string if those numbers were given in single/double quotes like, a = ‘2’. We can concatenate with normal string, can do the multiple operations, can’t perform the division and subtraction.

Variable: It is a temporary memory, we can assign values like integer, characters, strings, we can refer those by its temporary address, and variable will take memory size depends upon our allocation, we can reuse the variable by its name, n number of times. We can assign the values(‘it can be strings, integers, float,..etc’) for the processing, by calling that assigned address we can to operations, like print,..etc

Ex:

a=2, b=’DRDO’ 🡪here we assigned the integer, string values with a variable. We can refer those wherever it is required.

3. Describe three different data types.

Integer: it will take number for the operations, like addition, subtraction, multiplication, and division. Ex: a =2

Float: it will looks like integer but will take the decimal points in its values. Ex: a = 2.0

String: String is the combination of words within quotes. Ex: a = ‘apple’.

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

Expressions are the combination of variables, operations and will give the result and it will represent something like number, string. Any of the value can be an expression.

A = ‘cat’ 🡪 it will assign the value to **A,** but mere ‘cat’ is simple expression, by this simple expression we are not getting to be evaluate.

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

Ans:

Expressions are the combination of variables, operations

In statement we assign values to the particular variable, by making this, we can do operations easier in less time.

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

bacon = 22

bacon + 1

Ans: 23

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

'spam' + 'spamspam'

'spam' \* 3

Ans:

'spam' + 'spamspam' = ‘spamspamspam’

'spam' \* 3 = ‘spamspamspam’

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

We can define, variable name as starting with letters, and underscore, but we shouldn’t start with numbers, if we do so, it will throw an error “syntax error”

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

For integer🡪 int() function will be excuted

For Floating-point 🡪 float() will be executed

For String 🡪 str() will be executed

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

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

Ans:

In the above statement, 99 is given as an integer, will give: “TypeError: can only concatenate str (not "int") to str”

If we, take 99 as string, like 'I have eaten ' + ‘99’ + ' burritos 🡪 we will get an output as,

'I have eaten 99 burritos.'