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.

|  |  |
| --- | --- |
| \* | expression |
| 'hello' | Value |
| -87.8 | Value |
| - | Expression |
| / | Expression |
|  | Expression |
| 6 | Value |

2. What is the difference between string and variable?

Any value that is further used in the program is a variable. For example:

Name=”Avani”.

Here Name is a variable.

String is a data type. In the above example Name variable is of String data type

3. Describe three different data types.

Int-> integer eg value=2

String -> eg value=”Hello World”

Float-> eg value=2.3

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

Expression is made up of operators and operands. Expressions give values to the variables.

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

Spam =10 is a statement as variables are defined to a particular value in a statement whereas an expression includes operators as well as operand and returns a certain result. For example

Result=spam+10

Here Result will be an expression as a arithmetic operation is being performed in it.

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

bacon = 22

bacon + 1

bacon is 23.

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?

100 will be considered as a value and not as a variable name. This will be considered as a invalid variable name whereas eggs can we considered as a variable name because we can assign a value to eggs but we cannot assign a value 100.

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

Int(), float(), str() can be used to get the integer, floating point number or string version of a value. For example:

Value=2.3

int(Value)

float(Value)

str(Value)

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

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

Error is because string can be concatenated and here 99 is int value.

This can be fixed by: 'I have eaten ' + ‘99’ + ' burritos.'