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:

Values are ‘hello’, -87.8 & 6

Expressions are \*, -, / and +

2. What is the difference between string and variable?

String is sequence of characters a data type or can also be used as a literal while programming.

Variable is a part of memory location (address) which holds values during program execution (run-time).

3. Describe three different data types.

Numeric: Int, float, complex

Text: string

Boolean: True, False

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

Expression is made up of variables, literals or values along with mathematical operators like +, - \* / etc.

All expressions when executed produces a value which can be called an output

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

Statement does not return anything when executed it’s a standalone instruction where as expressions always produces a new value (Output)

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

bacon = 22

bacon + 1

bacon still has 22 since the expression bacon + 1 is not assigned to bacon

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

'spam' + 'spamspam'

'spam' \* 3

Both above expressions evaluates to 'spamspamspam'

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

eggs variable is valid since it starts with a character and also it’s not a Python reserved/key word. 100 is not valid because variable names MUST NOT start with a number.

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

By default the input function gets the string.

str = str(input("Enter String")) –this can be used without str() casting

flt = float(input("Enter a Float"))

intg = int(input("Enter an Integer"))

print(type(str))

print(type(flt))

print(type(intg))

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

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

Error because 99 is a number and causes type conversion error. This can be fixed with below

'I have eaten ' + str(99) + ' burritos.'