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’ , 6 , - 87.8 are values and (\* ,- , / ,+,) are expression

2. What is the difference between string and variable?

Ans. Strings are sequence characters like names and they are enclosed in single quote or double quote (‘ ‘, “ “)

on the other hand variables are named location that contains value

ex. a = 3

3. Describe three different data types.

Ans. Strings- they are sequence of characters that enclosed in single quote or double quote ex. “vikash”,’banana’ .

integer – they are whole numbers and can be positive or negative

ex. 0,2,3, -10, -8 .

floats – they are also number like integer but the difference is they are written in decimal point . They can be positive or negative

ex . -7.5 , 67.00 ,12.43

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

Ans. An expression made up of operators,operands and variables and the produces results or value after interpreted in python

ex. 7 + 10 \* 2 = 27

7 and 10 are operands , + and \* is operator and 27 is result.

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

Ans. Expressions

they are combinations of values, operators and variables and executes some value. They can be nested with one another and the can be often uses in statements

ex. 5 + 3 = 8.

statements

they are logical instructions that are used for specific tasks and executes actions . We can modify the program’s state in statements but not in expressions .there are different types of statement like assignment statements ,conditional statements, looping statements.

Statements perform actions unlike expressions

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

bacon = 22

bacon + 1

Ans. The bacon will contains same value (bacon = 22) because bacon + 1 did’t assignment any variable

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?

Ans. Eggs are valid variable because its starts with character identifier but a identifier does not starts with digit that why 100 is not a valid variable

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

Ans. For strings we can use str()

ex. str(34) , str(34.2)

the output will be executed as a string

for integers we can use int()

ex. int(‘hello’) , int(23.0)

the output will be integer

for float we can use float()

ex. float(‘delhi’) , float(12)

the output will be float

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

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

Ans. The expression cause an error because strings and integers can not be calculated. We can only calculate same data types