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.

= \* :- This is an expression.

'hello':-This is value

-87.8 :- This is integer

- :- This is expression

/ :- This is expression

* :- This is expression

6 :- This is integer

2. What is the difference between string and variable?

= String is datatype in python,composed of a collection of characters. It may be letters,numbers,special characters.It is data,so we can use them to fill up a variable.It is primitive data structure and building blocks for data manipulation.eg; “abc123”,”Hello world”.

Variables are containers for storing data values. It is a symbol used to store data in program. There are different types of variables like integer,float,string,bool. Eg, str. “John”, integer. 184, float 0.43 etc.

3. Describe three different data types.

= Python has different types of in built data types. It has simple,complex,built in types.

Eg; numeric(int,float,string,bool), collections: (list,tuples,dictionaries)

1.String: it represents sequence of characters as text or letters,characters. Eg;my\_name=”Poonam”.

2.list: It is a ordered sequence of elements. It is mutable or changeable. Denoted by square braces[].

Eg; my\_list=[Apple, Banana,Mangoes]

print(my\_list)

#Output: [Apple, Banana,Mangoes]

3.Tuples: It is an orderd collection of elelments,enclosed with parantheses. It is immutable,can’t be modified, can store fixed no.of items.Eg;

My\_tuples =(1,2,3,4)

print(My\_tuples)

Output: =(1,2,3,4)

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

= An Expreesion is a sequence or combination of values,variables,operaters and functions that always produce or returns a result value.

Eg; x=5, y=3. Z=x+y; in this eg. X y and z are variables. 5 Nd 3 are values. = and + are operators.

It is just to calculate to solve the values of something.

Z=x+y

Z=5+3

Z=8.

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

= An Expreesion is a sequence or combination of values,variables,operaters and functions that always produce or returns a result value.

Statement: It is any instruction that a python interpreter can execute called Statement. Instructions written in source code to get desired output.

Eg; If , while, for is a statements in python.

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

bacon = 22

bacon + 1

After running above code, both bacon variable contains an integers.

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

'spam' + 'spamspam'

'spam' \* 3

It should be spamspamspam

spamspamspam

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

Variable names cannot begin with numbers, so eggs is a valid variable. 100 is integer.

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

= int(),float(), str() this 3 functions used to get integer,float point and string

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

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

This expression got error , because python cannot concatenate string with an integers. So we have to convert integers into string by using str() function.

‘I have eaten ninty nine burritos.’