**Assignment – 1 Solution**

Q.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

**Answer => Values are as following:**

1. **‘hello’**
2. **-87.8**
3. **6**

**Expression are as following:**

1. **\***
2. **–**
3. **/**
4. **+**

Q.2 => What is the difference between string and variable?

**Answer => Variable :- Variable is used to store the some information.**

**String :- String is number of character or text or word that is enclose with “ “ .**

**For Example:-**

**Str a = “Sachin Bhumihar”**

**Here a is variable that stored the text or word and inside the double**

**Quotes words are string.**

**Here a is string type variable that store some sort of data.**

Q.3 => Describe three different data types.

**Answer => 1. Numeric Type :- int, float and complex**

**2. Sequence Type:- List and tuple**

**3. Mapping Type:- dict**

**Int :- integer is number for example 34,45,6789,these are come in int type.**

**Float :- Float is also a number but is different from integer it store floating point number.**

**For example:- 34.5, 56.33**

**Complex :- complex is data type that represent with j.**

**For example 34+8j, 45+7j**

**List :- list is a data type that store homogeneous as well heterogeneous data. List is mutuable so we can access any element from the list using indexing and also we can change the element in list.**

**For example :- [1,2,3,45.6, 45+7j,”Sachin”]**

**Tuple :- tuple is a data type that store homogeneous as well heterogeneous data. Tuple is immutable so we can’t change the element of tuple.**

**For example :- (4,5,6,45.9,34+9j,”Bhumihar”)**

**Dict :- dict is a data type that store homogeneous as well a heterogeneous data but in key value format.**

**For example :- {“name” : “Sachin”, “Surname” : “Bhumihar”}**

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

**Answer :- An expression is combination of operators and operands that produce some other value.**

**Expression are representation of value.**

**For example :- 34 + 34 = 68**

**Here + is operators and 34 are operands both are expression and produce other value that is 68.**

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

**Answer :- Expression is a combination of operators and operands and also that return a some value. And statement is an instruction that does not return anything.**

**So we can anything written in python is statement.**

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

**bacon = 22**

**bacon + 1**

**Answer :- Variable bacon contain 23 value.**

**Because bacon store 22 and in next line it will increase with 1 so it contain 23.**

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

**'spam' + 'spamspam'**

**'spam' \* 3**

**Answer :- both term return same output that is**

**“spamspamspam”**

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

**Answer : - eggs is valid variable name and 100 is invalid because variable name does not start with integer.**

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

**Answer => The int() , float() and str() function are used to get the integer, floating-point, or string version of value.**

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

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

**Answer => Because it’s only concatenate string not integer.**

**When we write this expression in following manner then it does not cause any error.**

**‘I have eaten 99 burritos’**