*Exercise No: 6*

*Date: 12/10/2020*

*AIM:*

*To predict the output for the given python program.*

*PROGRAM:*

*PREDICT THE OUTPUT:*

*# Create a tuple, also called tuple packing.*

*Numbers = 1, 2*

*Print(numbers)*

*(1, 2)*

*# Create tuple with paranthesis.*

*Numbers = (1, 2, 3)*

*Print(numbers)*

*(1, 2, 3)*

*# Create an empty tuple.*

*Numbers = ()*

*Print(numbers)*

*()*

*# Create a tuple with one item. Note that the trailing comma is necessary*

*Numbers = 1,*

*Print(numbers)*

*1*

*# Create a tuple with heterogenous items.*

*Random\_tuple = “Hey”, (1, 2), 1, [“you”]*

*Print(random\_tuple)*

*(‘Hey’, (1, 2), 1, [‘you’])*

*# Create tuple with tuple() constructor.*

*Numbers = tuple()*

*Print(numbers)*

*()*

*Numbers = tuple([1, 2]) #  Takes any sequence as input*

*Print(numbers)*

*(1,2)*

*#### Methods on tuples #####*

*# Get length of list by using len() method.*

*Numbers = 5, 8, 8*

*Print(len(numbers))*

*3*

*# Get index of an element using the index() method.*

*Numbers = 5, 8, 8*

*Print(numbers.index(8))*

*1*

*# Count occurences of an item in a tuple.*

*Numbers = 5, 8, 8*

*Print(numbers.count(8))*

*2*

*Eggs = (‘hello’, 42, 0.5)*

*Eggs[0]*

*‘hello’*

*Hello*

*Eggs[1:3]*

*(42, 0.5)*

*Len(eggs)*

*3*

*# Access elements of a tuple by indexing.*

*Str\_tuple = “hey”, “there!”, “how”, “are”, “you?”*

*Print(str\_tuple[0])*

*Hey*

*Print(str\_tuple[len(str\_tuple) – 1])*

*You?*

*Print(str\_tuple[-1])*

*You?*

*# Slicing a tuple.*

*Str\_tuple = “hey”, “there!”, “how”, “are”, “you?”*

*Print(str\_tuple[2:])*

*(‘how’, ‘are’, ‘you?’)*

*Print(str\_tuple[:2])*

*(‘hey’, ‘there!’)*

*Print(str\_tuple[-3:])*

*(‘how’, ‘are’, ‘you?’)*

*Print(str\_tuple[:-3])*

*(‘hey’, ‘there!’)*

*Print(str\_tuple[1:4])*

*(‘there!’, ‘how’, ‘are’)*

*# Get a copy of the tuple by slicing.*

*Print(str\_tuple[:])*

*(‘hey’, ‘there!’, ‘how’, ‘are’, ‘you?’)*

*# Concatenate tuples.*

*Numbers = (1, 2)*

*Strings = (“Hey”, “there”)*

*Print(numbers + strings)*

*(5, 8, 8, ‘Hey’, ‘there’)*

*(1, 2, “Hey”, “there”)*

*# Looping through tuple using ‘in’.*

*Numbers = 1, 2*

*For number in numbers:*

*Print(number)*

*1,2*

*1 2*

*# Check if element is present in tuple.*

*Numbers = 1, 2*

*Print(1 in numbers)*

*True*

*Print(5 in numbers)*

*False*

*# Tuple packing.*

*# We are packing two items 1 and 2 into the tuple.*

*Numbers = 1, 2*

*# Tuple sequence unpacking.*

*# Number of variables used has to be same as the number of items in the tuple.*

*# Unpacking the tuple and assigning its items to x and y.*

*X, y = numbers*

*# Note that this is also packing the args as a tuple which gets unpacked as the print method’s arguments.*

*Print(x, y)*

*1 2*

*LINK:*

*http://103.53.53.18/mod/hvp/view.php?id=238*

*RESULT:*

*The output for the given program is obtained.*