Python Assessment

*Date: 04-Feb-18*

**Objective questions – Choose the best answer among the 4 choices**

1. Python is a
   1. Procedural language
   2. Object oriented language
   3. Object oriented scripting language
   4. Language designed based on Java
2. When you execute Python script,
   1. Interpreter creates an executable
   2. Interpreter creates an intermediate .pyc followed by .pyo
   3. You can see the output immediately
   4. You can see the output immediately ; .pyc is created behind the scenes
3. Print(2\*\*5, 10%3) gives an output of
   1. 10,3
   2. 32,3
   3. 32,0
   4. 32,1
4. Does this code snippet throw any errors when executed?

S = **'hello'** \* 5   
S = S[0:len(S)]

* 1. Yes
  2. No

1. The clear method available in List object
   1. Deletes all the elements of List
   2. Deletes the List object itself
   3. Is not a valid attribute of list object
   4. Does nothing
2. How will you access the value ‘manager’ from the below code snippet ?

emp = {**'name'**: {**'first'**:**'firstname'**,**'last'**:**'lastname'**},  
 **'jobs'**: [**'developer'**,**'manager'**],  
 **'age'**:32}

* 1. emp[‘name’][‘jobs]
  2. emp[‘jobs’][2]
  3. emp[‘jobs’][1]
  4. emp[‘manager’]

1. d1 = {x: x\*\*2 **for** x **in** range(0,50,2)}  
   print(len(d1.keys()))

Output of above code snippet is

* 1. 24
  2. 50
  3. 25
  4. 0

1. The below code executes successfully. Choose Yes or No

T= [(1,2),(3,4)]  
T[0][1] = 30

* 1. Yes
  2. No

1. Output of below code

double = **lambda** x,y: (x+y)/2  
print(double(5.0,3.0))

* 1. 4
  2. 3.5
  3. 4.0
  4. 8

1. The steps in executing pattern matching are
   1. Import re module ; compile pattern using search ; search pattern using match
   2. Import re module ; compile pattern using compile ; search pattern using search
   3. Import re module ; compile pattern using compile ; search pattern using search ; get captured pattern using groups() method
   4. Import re module ; codify the pattern

**Problems – Use PyCharm Editor to find solutions:**

1. Write a Python function to reverse a string. If your name is entered as input, the reverse of your name should be displayed as output. Also, check if your name is a palindrome or not (i.e. if reverse of string and the original string are same – eg: ‘Malayalam’).

2. Create a list of first 100 numbers using range function. Create another list of first 100 numbers. Combine two list to one list so that the combined list has 200 numbers. Get unique values from the combined list.

3. Write a Python function that accepts a string and calculate the number of upper case letters and lower case letters.

Sample String : 'The quick Brown Fox'

Expected Output :

No. of Upper case characters : 3

No. of Lower case Characters : 13

4. Write a Python program that prints all the numbers from 0 to 6 except 3 and 6.

Note : Use 'continue' statement.

Expected Output : 0 1 2 4 5

5. Write a Python program to output the number of days for a given month.

Expected Output:

List of months: January, February, March, April, May, June, July, August

, September, October, November, December

Input the name of Month: February

No. of days: 28/29 days

Input the name of Month: December

No of days : 31 days

6. Write a Python class named Circle constructed by a radius and two methods which will compute the area and the perimeter of a circle.

*Area of a circle* = *πr*2

*Perimeter of a circle = 2πr*

( pi value can be referred using math module – math.pi )