Python Questionnaire - Practice

## **Tut 3**

1. Program to add two numbers provided by user.
2. Program to find the square root of any number.
3. Program to Calculate the area of a triangle.
4. Program to solve quadratic equation. Import cmath use cmath.sqrt
5. Program to swap two variables.
6. Program to generate a random number between 0 and 9. Import random.
7. Program to convert kilometer to miles.
8. Program to find the largest among three numbers.
9. Program to check if a user provided number is Prime number.
10. Program to print all prime numbers between two intervals.
11. Program to print fibonacci series. 0,1,1,2,3,5,8.. Using recursion.
12. Program to check whether a string is palindrome or not.
13. Program to display powers of 2 from 2 to 4096.
14. Program to return count of vowels in a sentence.
15. Program to print the reverse of a list.
16. What is the output?

*result = lambda x: x \* x  
 print(result(5))*

**17.** Using yield generate a list that outputs [7,6,5,4,3,2,1]

*def countdown(i):*

***pass***

*new = list(countdown(7))*

*print(new)*

cont….d

**18.** Build a class BookStore and instantiate its objects with different values using \_\_init\_\_() . Call member function bookinfo() for 4 objects and display Book Title and Book Author for each object.

**Sample output**

*Book title:* Turtles All the Way Down *Book author:* John Green

*Book title:* War and Peace *Book author:* Leo Tolstoy

*Book title:* Zero To One *Book author:* Peter Thiel

*BookStore.noOfBooks:* 3

**19. Output?**

D = dict()

for x in enumerate(range(5),1):

D[x[0]] = x[1]

D[x[1]+7] = x[0]

print(D)

Hint:

x = (1,0) x[0], x[1]

(2,1)

(3,2)

**20. What is the output?**

def generator\_function():

for i in range(10):

yield i

for item in generator\_function():

print(item,end=" || ")

**21. What is the output?**

1. A0 = dict(zip(('a', 'b' ,'c' ,'d' ,'e'),(1,2,3,4,5)))

print (A0)

(b) A1 = zip((1, 2 ,3 ,4 ,5'),(‘apple’, ‘orange’, ‘grapes’, ‘melon’, ‘berry’))

print (A1)

Hint:

[1,2,3] [4,5,6,7,8,9]

((1,4), (2,5) (3,6))

1:4, 2:5, 3:6

**22. Insurance Calculator**

Many financial experts advise that property owners should insure their homes or buildings for at least 80 percent of the amount it would cost to replace the structure. Write a program that asks the user to enter the replacement cost of a building and then displays the minimum amount of insurance he or she should buy for the property. The output should be shown in the format shown below.

def AskReplacementCost():

**pass**

def calcMinInsurance(replacementCost):

**pass**

def printdetails(minInsurance):

**pass**

def main():

replacementCost = AskReplacementCost()

CalculatedMinimumInsurance = calcMinInsurance(replacementCost)

printdetails(CalculatedMinimumInsurance)

main()

**Sample Output:**

**Please enter the replacement cost of your building: 50000000**

**Minimum insurance of the Property: 40,000,000.00**