

# Test Cases for Lab Test on 10 November

## Question 1 (TWIN PRIMES)

- 1  
**Output :**  
No output or message that there is no twin prime pair.
- 5  
**Output :**  
(3, 5)
- 6  
**Output :**  
(3, 5)
- 11  
**Output :**  
(3, 5)  
(5, 7)
- 100  
**Output :**  
(3, 5)  
(5, 7)  
(11, 13)  
(17, 19)  
(29, 31)  
(41, 43)  
(59, 61)  
(71, 73)

## Question 2 (3D Point)

- 10 0 10  
**Output :**  
P = (10.0, 0.0, 10.0)  
Distance = 10.0  
Translated P = (12.0, -3.0, 15.0)
- 2 11 -4.9  
**Output :**  
P = (-2.0, 11.0, -4.9)  
Distance = 19.15750505676561  
Translated P = (0.0, 8.0, 0.09999999999999964)

## Question 3 (Generalized Permutation)

- $S = \text{aaaaaa}, \quad L = 3$   
**Output :**  
aaa

2.  $S = \text{aaaab}$ ,  $L = 2$

**Output :**

ab

aa

ba

3.  $S = \text{aabbcc}$ ,  $L = 1$

**Output :**

a

b

c

4.  $S = \text{aabc}$ ,  $L = 2$

**Output :**

ab

ac

ba

bc

ca

cb

aa

5.  $S = \text{soon}$ ,  $L = 3$

**Output :**

Total 13 strings :

soo

oso

oos

noo

ono

oon

ooo

nso

nos

osn

ons

sno

son

## Grading Policy

- For question 1, grade totally based on the test cases : Each test case carries 2 marks
- For Question 2, each test case carries 2 marks. The remaining 6 marks are distributed as follows :
  1. 1 mark for attributes. They should be of type double
  2. 2 marks for constructors (one mark per constructor)
  3. 2 marks for method distance
  4. 1 mark for method translate
- Each test case has 2.5 marks except the last case which has 3 marks. The remaining 7 marks are distributed as follows
  1. 5 marks for logic
  2. 2 marks for coding style