**TUTORIAL- 4**

**IN-LAB:**

**1.** Minimize : C=21x1 + 50x2

Subject To:

2x1 + 5x2 >=12

3x1 +7x2 >=17

X1,x2 >=0

A.Formulate Linear programming model.

B. Solve Dual LP model using Python.

**2.** A XYZ company is hired by a retailer to transport goods from its store room in A and B to its outlets stores in C and D. The XYZ company is contracted to deliver 30 vehicles each month to deliver goods. The company determines that it will need to send at least 12 of the vehicles to the ‘C’ location and at least 13 vehicles to the “D” location. At least 15 vehicles can come from the A storeroom and at least 20 vehicles can come from the “B” . The truck company wants to minimize the number of miles placed on its trucks. How many trucks should the send out from each location and to which outlets should they send them?

A B

C 22ml 31ml

D 20ml 38ml

A.Formulate Linear programming model.

B. Solve Dual LP model using Python.