Observations and Calculations

Given Concentration of EDTA solution = 0.01 M

S. No.	Volume of EDTA used from the burette
1	17.4 mL
2	17.5 mL
3	17.5 mL

1 mole Ca reacts with 1 mole of EDTA to form of the Ca-EDTA complex.

Moles of Calcium = Moles of EDTA
(Molarity x Volume) of Calcium = (Molarity x Volume) of EDTA

Molarity of Calcium x 50 mL = 0.01 M x Volume of EDTA (Burette Reading)
Suppose Burette Reading is 17.5 mL
Molarity of Calcium = (0.01 x 17.5)/50
Molarity of Calcium= 3.5 $x10^{-3}$ M = 0.0035 M
Thus, the solution contains 0.0035 moles/Liter of calcium
Grams/Liter of calcium = 0.0035 x 40.08 (Atomic Weight of Calcium) = 0.140 g/L

★ The amount of EDTA consumed includes the small amount of Mg ions added