Home assignment

1. 100 mL of a water sample required 12 mL of N/50 HCl to phenolphthalein end point and 15 mL of the acid to methyl orange end point. What is the type and extent of alkalinity present in the solution?

2. 200 mL of a water sample on titration with N/50 HCl required 9 mL of the acid to phenolphthalein end point. After adding a few drops of methyl orange, titration is continued and the yellow colour of the solution just turned red after addition of another 21 mL of the acid solution. Elucidate on the type and extent of alkalinity present in the solution.