

LUDWIG-MAXIMILIANS-UNIVERSITÄT MÜNCHEN

Study Questions

Biophysical Chemistry/Molecular Biophysics Wintersemester 2021/2022

Preparation for Lecture 10

Department Chemie Prof. Don Lamb, PhD

Reading:

Biophysical Chemistry

Part III: The behavior biological macromolecules

Cantor and Schimmel

Pages 979-994 (Sections: 18-1 through 18-4)

Pages 1012-1014 (Section 18-10)

Copies of the selected pages are available in the library

Questions:

 What is the definition of 	end-to-end	distance a	and radius	of gyration	for a
flexible polymer chain?					

- 2) What is the mean-squared end-to-end distance of a polymer having n segments of length ℓ assuming a freely-jointed chain model?
- 3) What is the difference between the freely-jointed chain and the freely rotating chain models?
- 4) What is the characteristic ratio?
- 5) What is the persistence length?