

Topic	Sub Topic	Revised	Complete
Topic 1 Relaxation Kinetics	Understanding of the basics	Yes	
	Description of Relaxation kinetics and the perturbation time	Yes	
	Perturbation methods	Yes	
	Methods for observation of concentration after perturbation	Yes	
	Analysis of Relaxation Kinetics for determination of τ	Yes	
Topic 2 Diffusion Controlled Reactions in Solution	Understanding of the basics		
	Diffusion of a concentration gradient in an elementary bimolecular reaction		
	Fick's first law of diffusion		
	Stokes – Einstein – Debye equation		
	Corrections to theory of diffusion controlled reactions		
	Diffusion Controlled reactions between ions		
	Grotthus Mechanism for water		
	Encounter complexes and the 'Cage effect'		
Topic 3 Activation Controlled Reactions and Transition State Theory	Basics of activation energy		
	Diffusion and activation control limits		
	The transition state theory		
	The treatment of K^\ddagger		
	The kinetic isotope effect on the activation energy		
	Activation controlled reactions between ions		
	Entropy of activation for ionic reactions		
	Ionic strength effects on Ionic Reactions		

Are you confident in each topic area?		
Topic 1 Relaxation Kinetics	Topic 2 Diffusion Controlled Reactions in Solution	Topic 3 Activation Controlled Reactions and Transition State Theory