


Koyana Education Society's
Balasaheb Desai College, Patan
Department of Chemistry
Monthly Teaching Plan Year-2023-2024
September - 2023 Semester III & V

Name of the Teacher- Prof.Dr.V.A.Kalantre

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Dates	Unit	Sub unit	Teaching Method Aids
B.Sc.-II			
04/09/2023	Unit 3: Chemical kinetics	3.1 Introduction.	Inductive & Deductive
05/09/2023		3.2 Third order reactions: derivation of rate constant considering reaction with Equal initial concentration	Lecture
11/09/2023		characteristics, and examples of third order reaction.	Lecture
12/09/2023		3.3 Determination of order of reaction by: i) Integration method	Lecture
18/09/2023		ii) Graphical method and iii) Half-life method.	Lecture
25/09/2023		3.4 Effect of temperature on rate of reaction, Arrhenius equation. Concept of energy of activation.	Lecture
26/09/2023		3.5 Numerical problems	Lecture
B.Sc.-III			
01/09/2023	Unit 5. Electromotive force	5.7 Applications of emf measurements : i. Determination of pH of solution using Hydrogen electrode.	Lecture
07/09/2023		ii. Solubility and solubility product of sparingly soluble salts (based on concentration cells).	Lecture using ICT
08/09/2023	Unit 2. Spectroscopy	5.8 Numerical problems	Problem Solving
14/09/2023		2.1 Introduction.	Inductive & Deductive
15/09/2023		2.2 Electromagnetic radiation. 2.3 Interaction of radiation with matter, Electromagnetic spectrum.	Lecture

		Energy level diagram	
21/09/2023		2.4 Rotational spectra of diatomic molecules: Rigid rotor model, moment of inertia, energy levels of rigid rotor	Lecture
22/09/2023		selection rules, Intensity of spectral lines, determination of bond length, isotope effect, Microwave oven	Lecture
29/09/2023		2.5 Vibrational spectra of diatomic molecules: Simple Harmonic oscillator model, Vibrational energies of diatomic molecules, Determination of force constant, overtones.	Lecture


 Head
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