

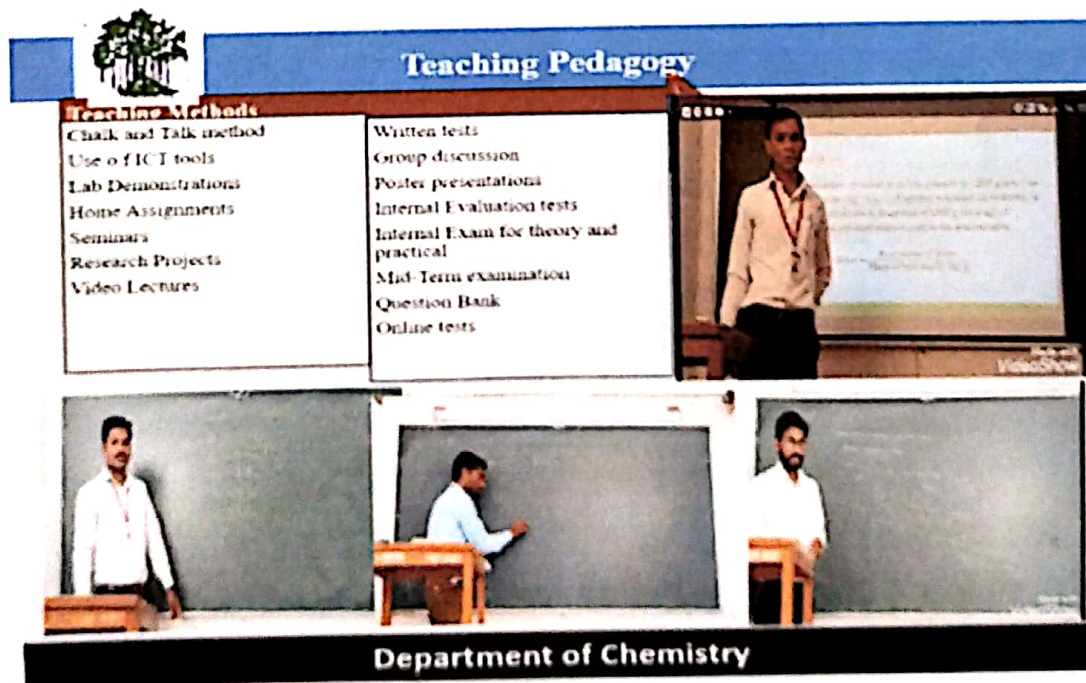
Rayat Shikshan Sanstha's
Dr. Patangrao Kadam Mahavidyalaya Ramanandnagar (Burli)
Tal: Palus Dist.: Sangli

Department of Chemistry

2021-22

Use of ICT for effective Teaching and learning

The department of chemistry used LCD Projector, Power point presentation and some online e- resources in the Teaching, learning process. The department of chemistry has the Subject wise PPT bank. This PPT bank is available for the students and faculty. The students deliver their seminar on the different topics of the syllabus by using PPT. Also the department of chemistry has the audio-video lecture uploaded on the college web site which is available for all Students. All the faculty member used ICT enabled tools for effective teaching learning.



Preparation of study materials in the form of Videos, PPTs, Notes etc

Chapter 1

Electrophilic Addition to $C=C$ Double Bond

Reaction Mechanism

Prof. Dr. Pankaj Nigam
Department of Chemistry

But-2-ene: C_4H_8 ($CH_3-CH=CH-CH_3$)

It is a simple conjugated diene. It is an important industrial chemical used as monomer in the synthesis of synthetic rubber.

1,2-Addition

Structure
The actual structure of the diene is a resonance hybrid of the following two structures:

Calculation of fundamental modes of Vibration

Types of molecules: Linear, Non-linear

Number of atoms: N

Number of degrees of freedom: $3N$

Number of translational degrees of freedom: 3

Number of rotational degrees of freedom: 2 (Linear), 3 (Non-linear)

Number of vibrational degrees of freedom: $3N - 5$ (Linear), $3N - 6$ (Non-linear)

Unit 6: Fundamentals of Organic Chemistry

- Introductory
- Carved arrow notations
- Geometry of Bonds: Alkenes and Alkynes
- Organic molecular species: Nucleophiles and Electrophiles
- Electronic Displacements: Inductive Effect, Electromeric Effect, Resonance and Hyperconjugative effect
- Reactive Intermediates: Generation, Structure, Stability and Reactions of Carbocations, Carbanions and carbon free radicals

1.1 Definition of a drug

1. It should be pure and safe when used in the patient.
2. It should be effective in the treatment of the disease.
3. It should be suitable for the patient.
4. It should be suitable for the disease.
5. It should be suitable for the patient.
6. It should be suitable for the patient.
7. It should be suitable for the patient.
8. It should be suitable for the patient.

1.2 Meaning of Spectroscopy

Spectroscopy is the study of interaction of electromagnetic radiation with matter. It is a branch of science which is concerned with the study of interaction of electromagnetic radiation with matter.

Types of Spectroscopy:

- **Ultraviolet Spectroscopy:** It is a branch of spectroscopy which is concerned with the study of interaction of ultraviolet radiation with matter.
- **Infrared Spectroscopy:** It is a branch of spectroscopy which is concerned with the study of interaction of infrared radiation with matter.
- **Visible Spectroscopy:** It is a branch of spectroscopy which is concerned with the study of interaction of visible radiation with matter.
- **Atomic Spectroscopy:** It is a branch of spectroscopy which is concerned with the study of interaction of electromagnetic radiation with atoms.
- **Molecular Spectroscopy:** It is a branch of spectroscopy which is concerned with the study of interaction of electromagnetic radiation with molecules.

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