



# RABINDRA MAHAVIDYALAYA

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Champadanga, Hooghly, West Bengal, Pin.-712401

Estd.- 1971



Ref. No.....

Date.....

## Session 2022-23

### 2.3.2 Teachers use ICT enabled tools for effective teaching-learning process.

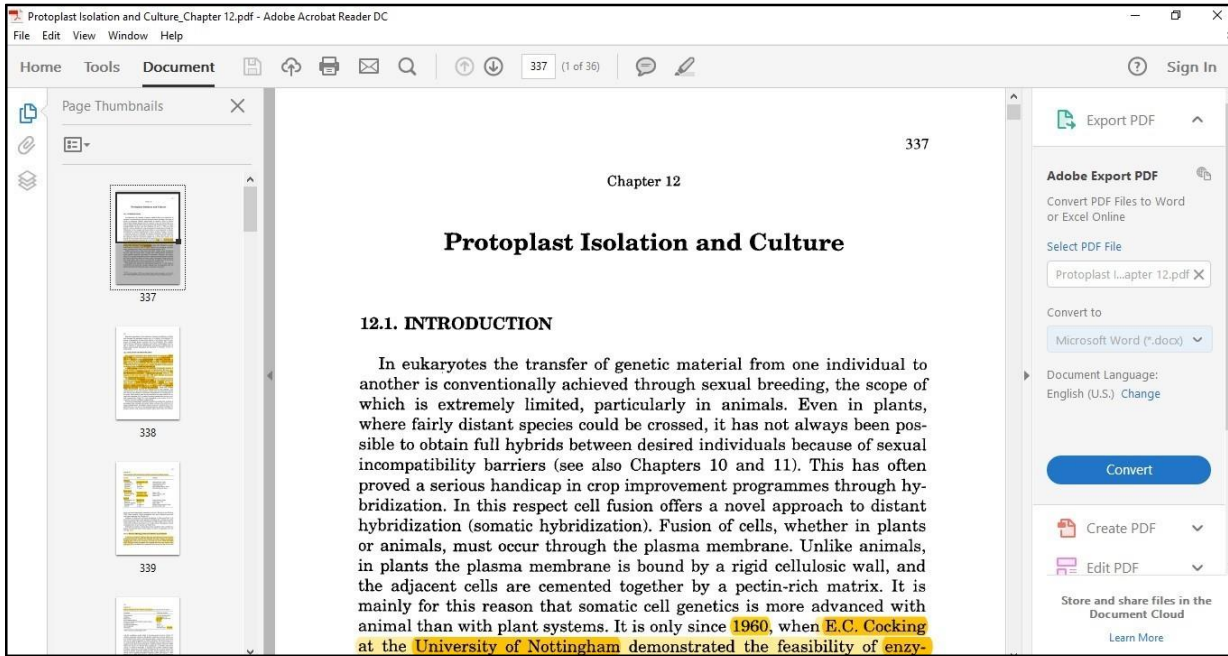
Along with offline classes some Departments also use online mode of teaching. Google Meet, Zoom, Youtube links, Jamboard in Google meet and Tesmoz App have been used. For this purpose Desktop, laptop, LCD projector, printer, pen drive, Mobile Smart phone, microphone, scanner, external hard drive, sound system etc were used by the various Departments. Video, PPT, PDF, WORD documents, excel, e-resources, e-journals, e-books, notes etc. study materials were provided to the students during this academic session. E-Journals and e-books were used for effective teaching and learning. A few numbers of ICT enabled classrooms were developed in some Department and also in the college campus as central facilities.

### DEPARTMENT OF BOTANY

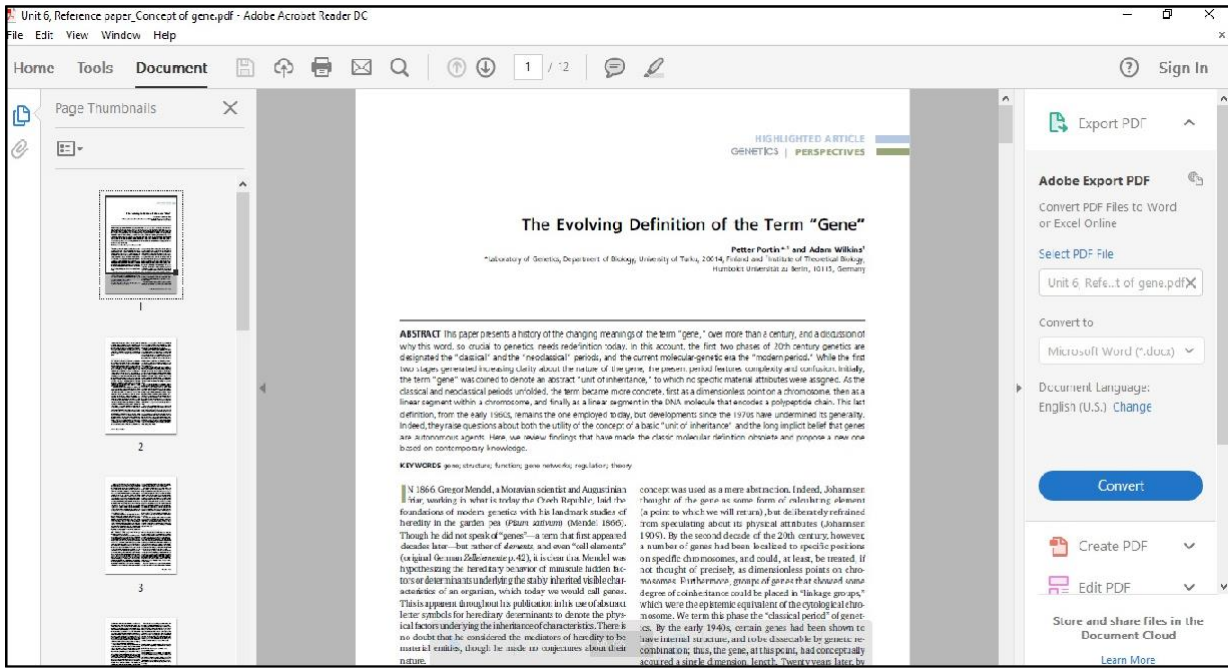
#### Snapshots/ screenshots of E-resources and techniques used in 2022-23



Teachers taking ICT enabled classes taken in classrooms

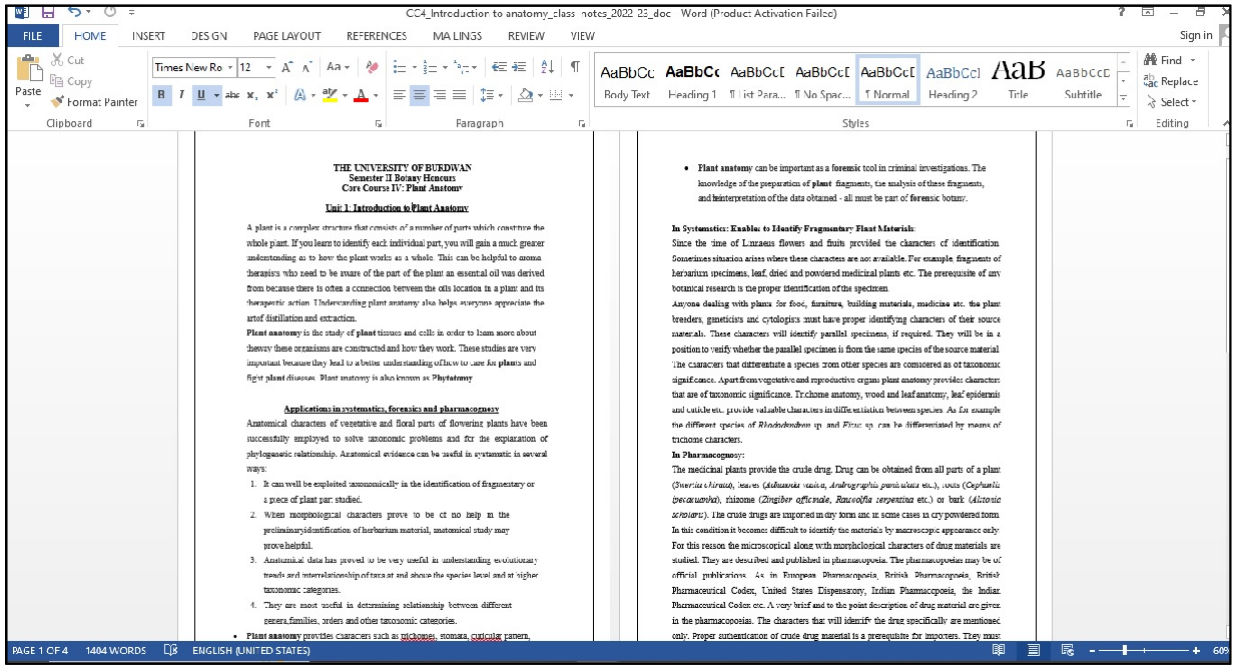


**Screenshot (sample) of E- Book chapter**

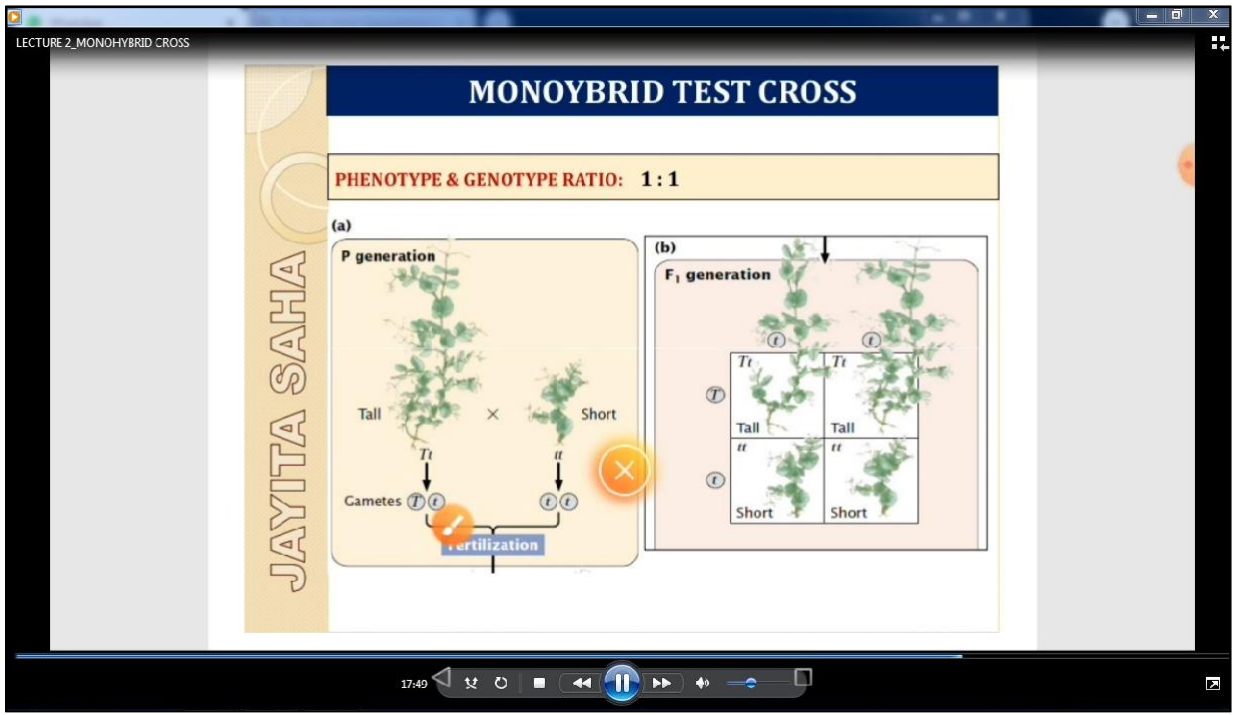


**Screenshot (sample) of E- Journal Resource**





**Screenshot (sample) of Word Doc. as class notes provided to students**



  
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LECTURE 3\_DI-HYBRID CROSS

## DIHYBRID TEST CROSS

JAYITA SAHA

Round, yellow  $RrYy$  × Wrinkled, green  $rryy$

Expected proportions for first character:  $Rr \times rr$   
 $\frac{1}{2} Rr$  Round,  $\frac{1}{2} rr$  Wrinkled

Expected proportions for second character:  $Yy \times yy$   
 $\frac{1}{2} Yy$  Yellow,  $\frac{1}{2} yy$  Green

Expected proportions for both characters:  $RrYy \times rryy$

**PHENOTYPE & GENOTYPE RATIO:**  
**1 : 1 : 1 : 1**

A branch diagram can be used for determining the phenotypes and expected proportions of offspring from a **dihybrid testcross** ( $RrYy \times rryy$ ).

1634 XRecorder

Screenshot of video (sample)

Department of Defence Studies(2022-23)



Prof. Jana delivered lecture on Submerin Mechanism.



Prof. Adhikari delivered lecture on Grenade Mechanism.



Prof. Adhikari delivered lecture on finding true north.



Prof. Jana delivered lecture on Submerin Main parts.

  
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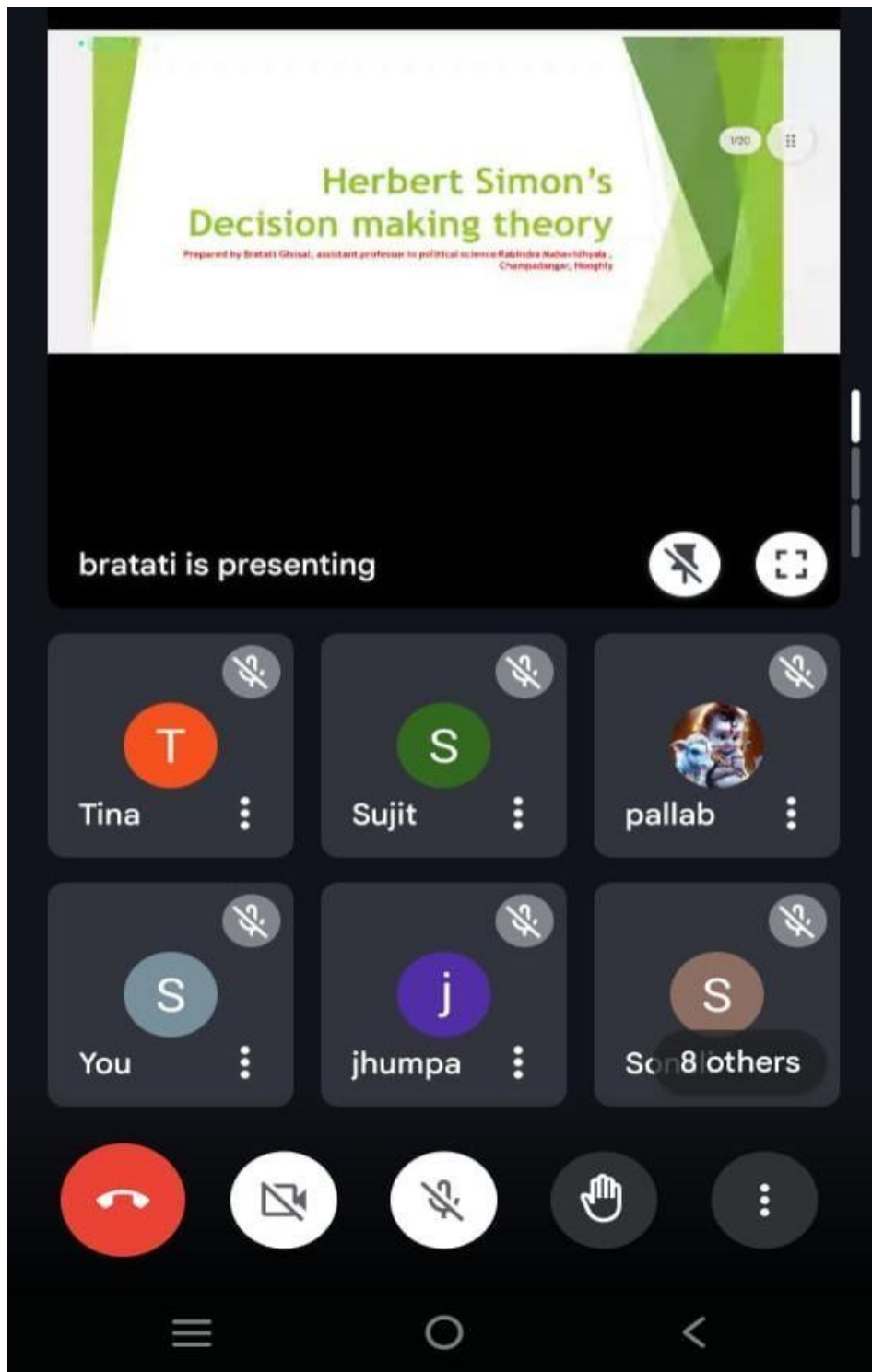
## Department of Political Science(2022-2023)

Result of sample class test taken with the use of testmoz app



Name	Score
Jebabrata Maji	55% (11/20)
man Middya	30% (6/20)
man Middya	50% (10/20)
uheli jana	25% (5/20)
riya Ghosh	65% (13/20)
K RIYAZUDDIN	50% (10/20)
neha das	45% (9/20)
neha Das	50% (10/20)
neha das	45% (9/20)
neha Das	55% (11/20)
suktara khatun	50% (10/20)
wagata Banerjee	35% (7/20)

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Sample ppt presentation for sem -3, paper CC-6

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**DEPARTMENT OF GEOGRAPHY(2022-2023)**



Photo. Ongoing RS GIS class in the Department of Geography –An example of ICT enabled class

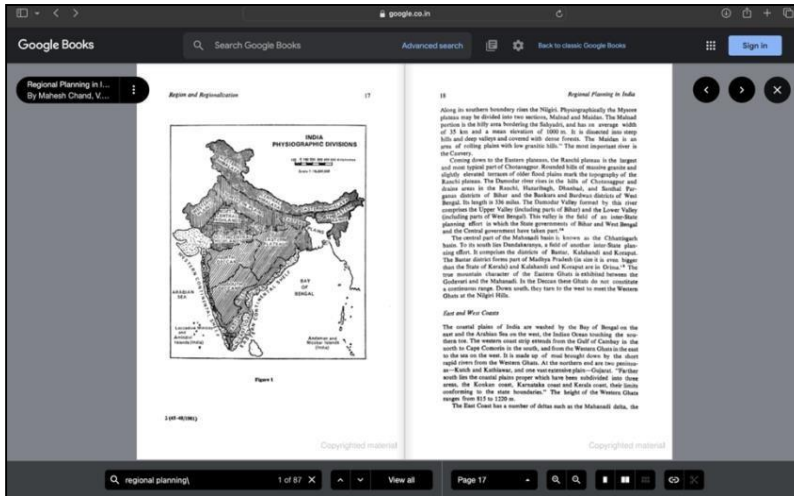


Figure. Making sense of intricate regional geography mapping using Google Books

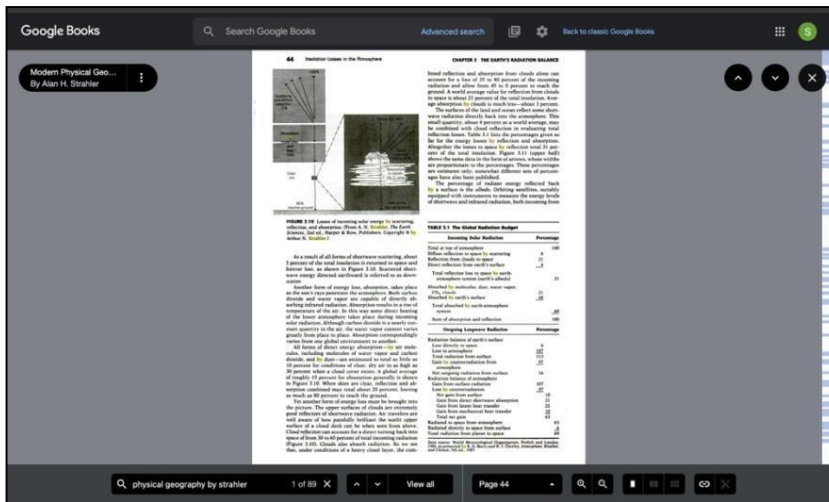


Figure. Using Google Books to help understand complex climate diagrams

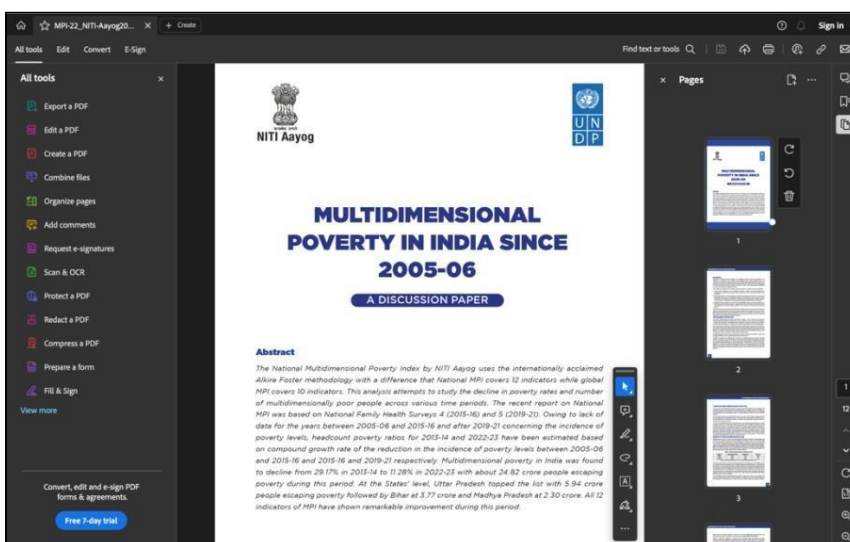
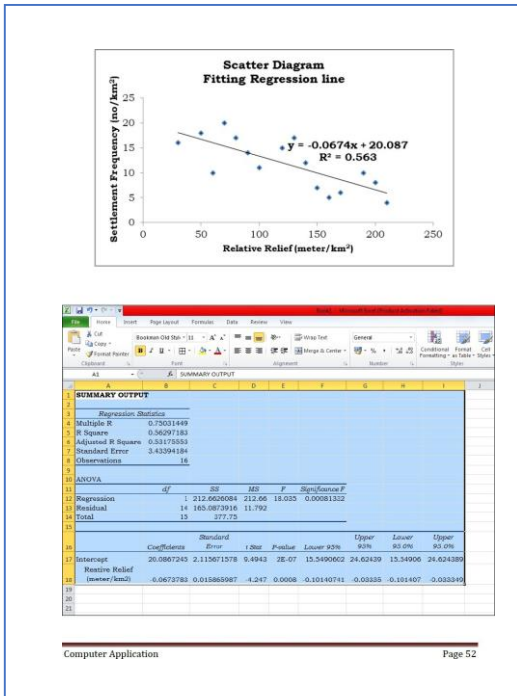




Figure. Sample e-discussion paper for understanding theory of Economic Geography



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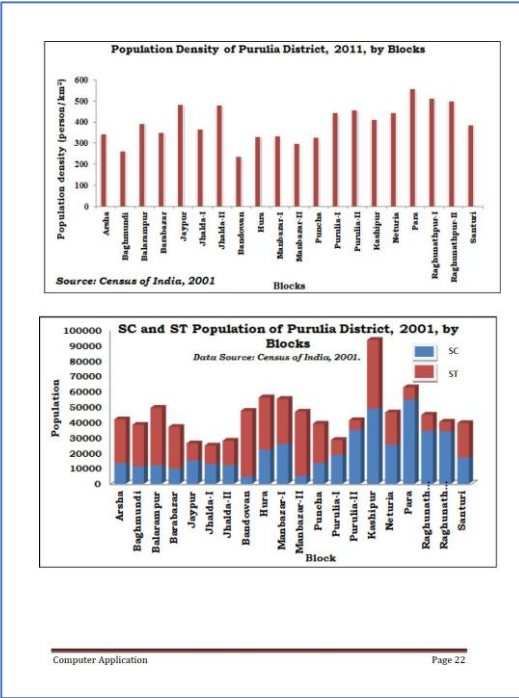
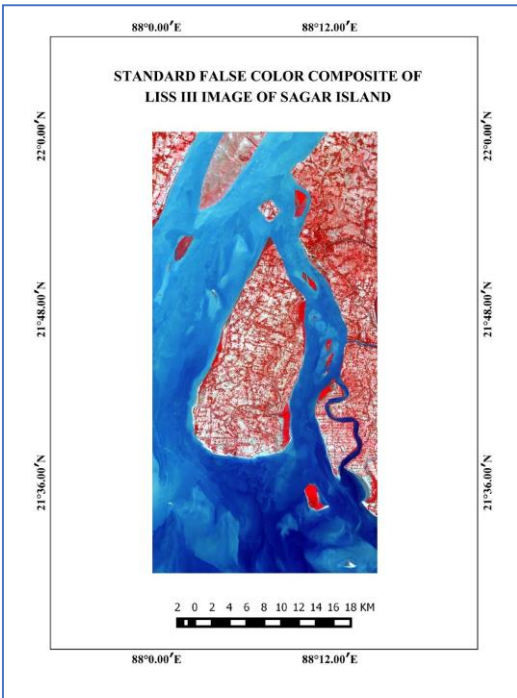
**THE UNIVERSITY OF BURDWAN**

ROLL: \_\_\_\_\_ NO: \_\_\_\_\_  
 REGN NO: \_\_\_\_\_ SESSION: \_\_\_\_\_

**LABORATORY NOTE BOOK  
FOR  
COMPUTER APPLICATION  
REMOTE SENSING AND GIS**



Figures. Students of Geography have done project work using ICT enabled tools

  
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# Department of Chemistry (2022-2023)

Snapshots/ screenshots of E-resources and techniques used

## Screenshot (sample) of Resources

### PPT Sample

**PERIODIC TABLE**

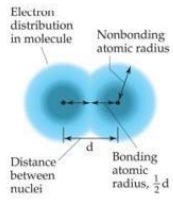
By  
Dr. Sucheta Joy  
Assistant Professor  
Department of Chemistry  
Rabindra Mahavidyalaya  
Champadanga, Hooghly



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**Atomic Radii**

The atomic radius is defined as one-half of the distance between covalently bonded atoms.

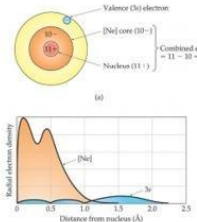


**Effective Nuclear Charge**

The effective nuclear charge,  $Z_{eff}$  is found by:  
 $Z_{eff} = Z - S$

where  $Z$  is the atomic number and  $S$  is a screening constant, usually close to the number of inner electrons.

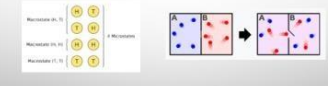
Note: For simple estimation, we may use the inner number of electrons



2

CHEMISTRY HONS. SEM- V  
**PHYSICAL CHEMISTRY**  
LESSON 1  
BY  
DR. DEBASMITA SARDAR  
ASSISTANT PROFESSOR  
DEPARTMENT OF CHEMISTRY  
RABINDRA MAHAVIDYALAYA  
CHAMPADANGA, HOOGHLY

Course Code- DSE-1  
Course Title- Advanced Physical Chemistry (Theo)  
Statistical Thermodynamics



Topics

1. Configuration: Macrostates, microstates and configuration; calculation with harmonic oscillator; variation of  $W$  with  $E$ ; equilibrium configuration
2. Boltzmann distribution: Thermodynamic probability, entropy and probability, Boltzmann distribution formula (with derivation); Applications to barometric distribution; Partition function, concept of ensemble - canonical ensemble
3. Partition function: molecular partition function and thermodynamic properties, Maxwell's speed distribution; Gibbs' paradox

**Introduction**

- Statistical mechanics, one of the pillars of modern physics, describes how macroscopic observations are related to microscopic parameters that fluctuate around an average
- What are macroscopic properties?
- Who is father of statistics?
- What are the meanings of statistics?
- What is the definition of statistics?
- What is statistical mechanics used for?
- What is the aim of statistical thermodynamics?

Statistical thermodynamics  
Lectures 7, 8

Quantum ↔ Classical


Energy levels ↔ Bulk properties

Various forms of energies.

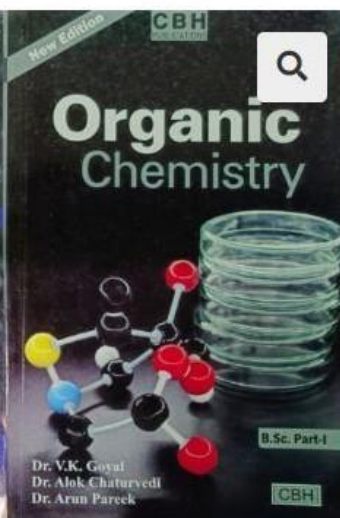
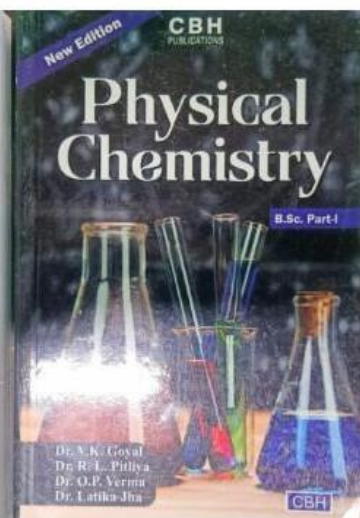
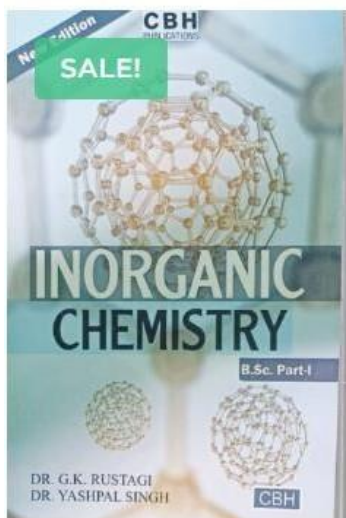
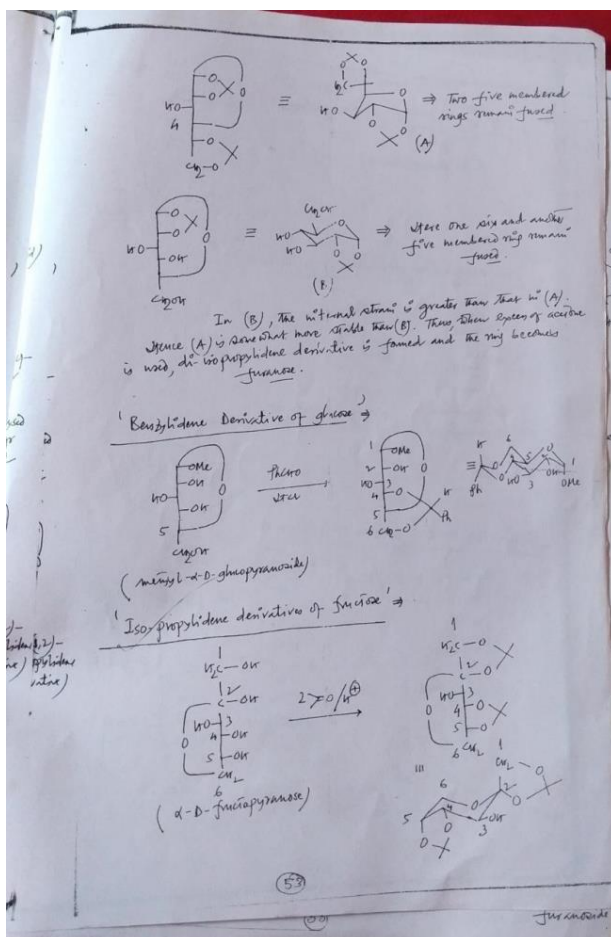
Everything turns out to be controlled by temperature

**Why is it useful?**

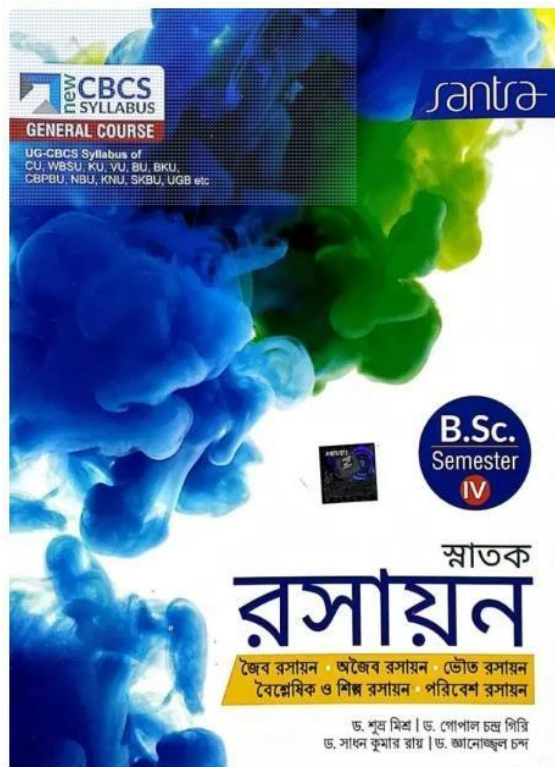
- There are 2 strands of Physical Chemistry:
  - Macroscopic: thermodynamics and kinetics (i.e. reactions occur, and if so, at what rate?)
  - Microscopic: atomic structure-spectroscopy and their explanation by quantum mechanics.
- These (apparently) unrelated strands can be linked by statistical thermodynamics.
- E.g. we can calculate the enthalpy of a reaction instead of measuring it!



PDF Sample/ Books



Bengali book for general students



ICT Classes



Class taken by Dr. Sucheta Joy, Assistant Professor, Department of Chemistry



Class taken by Dr. Debasmita Sardar, Assistant Professor, Department of Chemistry



Class taken by Dr. Rabiul Alam, Assistant Professor, Department of Chemistry