



# Aggarwal College Ballabgarh

## LESSON PLAN

17 WEEKS (JAN-APRIL)-2025

Name of Faculty: Geeta  
Designation/ Department: Chemistry

CLASS: B.Sc.III

SEMESTER: 6th

SECTION: Chem.Hons.

SUBJECT: *physical chemistry*

Week		
1	7-1-2025	Infrared spectrum: energy levels of simple harmonic oscillator.
	8-1-2025	Selection rule.
	9-1-2025	Pure vibration spectrum.
	10-1-2025	
	11-1-2025	
	12-1-2025	S. U. N. D. A. Y.
2	13-1-2025	Intensity determination of force constant and qualitative relation of force constant and bond energies,
	14-1-2025	effect of anharmononic motions and isotope on the spectrum.
	15-1-2025	Idea of vibrational frequencies of different functional gp

	16-1-2025	rotational - vibration spectrum
	17-1-2025	
	18-1-2025	
	19-1-2025	<b>S. U. N. D. A. Y.</b>
3	20-1-2025	Calculation of energy of levels and selection rule.
	21-1-2025	<b>Test-I</b>
	22-1-2025	<b>Assignment-I</b>
	23-1-2025	Quantum theory of Raman effect.
	24-1-2025	
	25-1-2025	
	26-1-2025	<b>REPUBLIC DAY /S. U. N. D. A. Y.</b>
4	27-1-2025	Classical theory of Raman effect.
	28-1-2025	Pure rotational Raman spectra.
	29-1-2025	Raman activity of vibration.
	30-1-2025	Rotation - vibration Raman spectrum.
	31-1-2025	
	1-2-2025	

	2-2-2025	<b>S. U. N. D. A. Y/BASANT PANCHAMI</b>
5	3-2-2025	Polarisation of light and Raman effect.
	4-2-2025	Experimental technique. Application of Raman effect
	5-2-2025	Elementary idea of nuclear magnetic resonance
	6-2-2025	Coupling constant.
	7-2-2025	
	8-2-2025	
	9-2-2025	<b>S. U. N. D. A. Y</b>
6	10-2-2025	Chemical shift.
	11-2-2025	<b>Test-II</b>
	12-2-2025	<b>HOLIDAY: GURU RAVIDAS JAYANTI</b>
	13-2-2025	<b>Assignment-II</b>
	14-2-2025	
	15-2-2025	
	16-2-2025	<b>S. U. N. D. A. Y.</b>
7	17-2-2025	Concepts of potential energy curves for bonding and antibonding molecular orbitals.
	18-2-2025	Qualitative description of selection rule.

	19-2-2025	Franck-condon principle.
	20-2-2025	Qualitative description of , $\pi$ and $\delta$ orbitals
	21-2-2025	
	22-2-2025	
	23-2-2025	<b>S. U. N. D. A. Y.</b>
8	24-2-2025	their energy level and their respective transition.
	25-2-2025	Elementary idea of electron spin resonance spectroscopy.
	26-2-2025	<b>HOLIDAY: MAHA SHIVRATRI</b>
	27-2-2025	Application ESR spectroscopy.
	28-2-2025	
	1-3-2025	
	2-3-2025	<b>S. U. N. D. A. Y.</b>
9	3-3-2025	<b>Test-III</b>
	4-3-2025	<b>Assignment-III</b>
	5-3-2025	<b>Presentation</b>
	6-3-2025	<b>Presentation</b>
	7-3-2025	
	8-3-2025	
	9-3-2025	<b>S. U. N. D. A. Y.</b>

10	10-3-2025	Dual nature of matter and light
	11-3-2025	Photoelectric effect.
	12-3-2025	De-Broglie equation
	13-3-2025	Heisenberg's uncertainty principle
	14-3-2025	
	15-3-2025	
	16-03-2025	<b>S. U. N. D. A. Y.</b>
11	17-3-2025	Schrodinger wave equation
	18-3-2025	Schrodinger wave equation and its significance
	19-3-2025	Physical interpretation of the wave function
	20-3-2025	Postulates of quantum mechanics.
	21-3-2025	
	22-3-2025	
	23-3-2025	<b>S. U. N. D. A. Y.</b>
12	24-3-2025	Particle in one dimensional box

	25-3-2025	Particle in three dimensional box.
	26-3-2025	Particle in three dimensional box.
	27-3-2025	Test-IV
	28-3-2025	
	29-3-2025	
	30-3-2025	<b>S. U. N. D. A. Y.</b>
13	31-3-2025	<b>HOLIDAY: ID-UL-FITR</b>
	1-4-2025	Assignment-IV
	2-4-2025	Presentation
	3-4-2025	Presentation
	4-4-2025	
	5-4-2025	
	6-4-2025	<b>S. U. N. D. A. Y.</b>
14	7-4-2025	Presentation
	8-4-2025	Presentation
	9-4-2025	Presentation
	10-4-2025	<b>HOLIDAY: MAHAVIR JAYANTI</b>
	11-4-2025	
	12-4-2025	
	13-4-2025	<b>S. U. N. D. A. Y.</b>
15	14-4-2025	<b>HOLIDAY: AMBEDKAR JAYANTI</b>
	15-4-2025	Presentation

	16-4-2025	Presentation
	17-4-2025	Presentation
	18-4-2025	
	19-4-2025	
	20-4-2025	S. U. N. D. A. Y.
16	21-4-2025	Revision
	22-4-2025	Revision
	23-4-2025	Test
	24-4-2025	Test
	25-4-2025	
	26-4-2025	
	27-4-2025	S. U. N. D. A. Y.
17	28-4-2025	Revision
	29-4-2025	Revision
	30-4-2025	HOLIDAY: AKSHAY TRITYA
	01-05-2025	Revision
	02-05-2025	
	03-05-2025	
	04-05-2025	S. U. N. D. A. Y.

GEETA RATHI

Signature