

Lesson Plan

Name of the Assistant/ Associate Professor..... Pooja.....

Class and Section:..... B. Sc. III (Section-I) (15).....

Subject:..... Physics.....

Week	Date	Topics
1	1-Jan-18	(1.1) Historical Introduction of observations in Atomic spectroscopy
	2-Jan-18	- do -
	3-Jan-18	(1.2) Review of Quantum theory (1.2.1)
	4-Jan-18	(1.2.3) Bohr Atom Model
	5-Jan-18	(1.2.4) Bohr Sommerfeld Atom Model
	6-Jan-18	- do -
	7-Jan-18	Sunday
2	8-Jan-18	(1.3) space Quantization and Larmor's theorem
	9-Jan-18	- do -
	10-Jan-18	(1.4) Magnetic Moment of the atom
	11-Jan-18	solved + unsolved examples
	12-Jan-18	(2.1) Gross structure of the spectra of Alkali atoms
	13-Jan-18	(2.1) Theoretical Interpretation
	14-Jan-18	Sunday
3	15-Jan-18	(2.2) Penetrating and Non-Penetrating orbits in alkali metals
	16-Jan-18	(2.2) Its quantitative description
	17-Jan-18	Examples
	18-Jan-18	(3.1) Vector Atom Model Introduction
	19-Jan-18	(3.1) Vector Atom Model
	20-Jan-18	- do -
	21-Jan-18	Sunday
4	22-Jan-18	Vasant Panchami
	23-Jan-18	(3.2) observed doublet fine structure in the spectra of Alkali elements
	24-Jan-18	Sir Chhotu Ram Jayanti
	25-Jan-18	(3.3) Interpretation of the doublet fine structure on the basis of vector atom model
	26-Jan-18	Republic Day
	27-Jan-18	(3.3.1) spin-orbit interaction of the electron
	28-Jan-18	Sunday
5	29-Jan-18	(3.3.2) spin-orbit interaction for Non-Penetrating orbits
	30-Jan-18	(3.3.3) spin-orbit interaction for Penetrating orbits
	31-Jan-18	Examples

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Name of the Assistant/ Associate Professor..... Pooja.....

Class and Section:..... B.Sc. III (Section-I) (1-b).....

Subject:..... Physics.....

Week	Date	Topics
1	1-Feb-18	(4.1) LS-Coupling of Russell-Saunders' Coupling
	2-Feb-18	(4.1.1) RR-Coupling
	3-Feb-18	(4.1.2) SS-Coupling
	4-Feb-18	Sunday
2	5-Feb-18	Test of chapter 1 + 2
	6-Feb-18	(4.1.3) LS-Coupling
	7-Feb-18	(4.1.4) Pauli-Exclusion Principle and Term values of Equivalent electrons
	8-Feb-18	(4.2) Pauli-Principle and periodic classification of elements
	9-Feb-18	Test of chapter - 3
	10-Feb-18	Maharshi Dayanand Saraswati Jayanti
	11-Feb-18	Sunday
3	12-Feb-18	(4.3) spin-orbit interaction energies for two valence - e system
	13-Feb-18	Maha Shivratri
	14-Feb-18	(4.3.1) g factor for LS-Coupling
	15-Feb-18	(4.3.2) The Landé interval Rule
	16-Feb-18	(4.4) jj-Coupling scheme
	17-Feb-18	- do -
	18-Feb-18	Sunday
4	19-Feb-18	Examples of chapter - 4
	20-Feb-18	(5.1) Zeeman effect for a single valence-electron system
	21-Feb-18	(5.1.1) Theoretical explanation of Zeeman effect
	22-Feb-18	(5.1.2) Zeeman pattern of the D ₁ and D ₂ lines of Na Atom
	23-Feb-18	(5.2) Paschen-Back Effect
	24-Feb-18	(5.3) Stark effect of Hydrogen Atom
	25-Feb-18	Sunday
5	26-Feb-18	(5.3.2) Weak-Field Stark effect in Hydrogen
	27-Feb-18	(6.1) Molecular spectra
	28-Feb-18	(6.2) Electronic states of Diatomic Molecules

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Name of the Assistant/ Associate Professor..... Pooja.....

Class and Section:..... B.Sc. III (Section-I) (1-6).....

Subject:..... Physics.....

Week	Date	Topics
1	1-Mar-18	Guru Ravidas Birthday
	2-Mar-18	Holi
	3-Mar-18	(6.3) Rotational spectra in the far infrared or Microwave Region
	4-Mar-18	Sunday
2	5-Mar-18	(6.4) Vibrational spectra in the infrared Region
	6-Mar-18	(6.4.2) Anharmonic Oscillator Model
	7-Mar-18	(6.5) Vibrating Rotator Model of the Diatomic Molecules
	8-Mar-18	(6.6) Raman Effect
	9-Mar-18	(6.7) Electronic spectra
	10-Mar-18	(6.7.2) Rotational structure
	11-Mar-18	Sunday
3	12-Mar-18	Test of chapters.
	13-Mar-18	(7.1) Introduction of laser
	14-Mar-18	(7.2) Properties of laser beam
	15-Mar-18	(8.1) The Einstein coefficients, (8.2), (8.3), (8.4)
	16-Mar-18	(8.5) Amplification of Radiation, (8.6), (8.7), (8.8)
	17-Mar-18	(9.1) Resonant Cavity
	18-Mar-18	Sunday
4	19-Mar-18	(9.2) The Threshold condition, (9.3) laser pumping
	20-Mar-18	(10.1) Ruby laser
	21-Mar-18	(10.2) He-Ne laser, (10.3) semiconductor laser
	22-Mar-18	(11) Use of lasers in science
	23-Mar-18	Shaheedi Diwas of Bhagat Singh, Rajguru & Sukhdev
	24-Mar-18	Test of chapters 8, 9, 10th.
	25-Mar-18	Sunday/ Ram Navami
5	26-Mar-18	Uses of laser in industry, medicine
	27-Mar-18	(1.1) structure of the nucleus, (1.2)
	28-Mar-18	(1.3) Basic Properties of Atomic Nuclei
	29-Mar-18	Mahavir Jayanti
	30-Mar-18	(1.4) Nuclear Mass and Binding Energy, (1.5) (1.6)
	31-Mar-18	(1.7) Determination of the size of Nucleus by Rutherford back scattering of α -particle

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Name of the Assistant/ Associate Professor..... Pooja

Class and Section:..... B.Sc III (C section - I) (1-6)

Subject:..... Physics

Week	Date	Topics
1	1-Apr-18	Sunday
	2-Apr-18	Test of Unit - III, paper - I
	3-Apr-18	(1.8) Nuclear Mass and its Determination, (1.9) (1.10)
	4-Apr-18	(2.1) Interaction of Heavy charged particles with Matter (2.2), (2.3)
	5-Apr-18	(2.4) Range and straggling of α -particles, (2.5), (2.6)
	6-Apr-18	(2.7) Interaction of light charged particles with Matter (2.8), (2.9), (2.10), (2.11)
	7-Apr-18	(2.12) β -decay and Energy loss of β -particles in Matter (2.14), (2.15)
	8-Apr-18	Sunday
2	9-Apr-18	(2.19) Gamma - Rays through Matter
	10-Apr-18	(2.20) Electron - Positron Annihilation
	11-Apr-18	Examples of chapter 2.
	12-Apr-18	(3.1) Nuclear Reactions, (3.2) Types of Nuclear Reaction, (3.3)
	13-Apr-18	Nuclear Reactor, Nuclear Fission and Nuclear Fusion
	14-Apr-18	Dr Ambedkar Jayanti / Vaisakhi
	15-Apr-18	Sunday
	3	16-Apr-18
17-Apr-18		(3.11) General form Heterogeneous type Nuclear Fission Reactor
18-Apr-18		Parashurama Jayanti
19-Apr-18		(3.20) Nuclear Fusion Reactor, (3.21), (3.22)
20-Apr-18		(4.1) Particle Accelerators, Van-de-Graff Accelerators
21-Apr-18		(4.2.2) Tandem Accelerator
22-Apr-18		Sunday
4		23-Apr-18
	24-Apr-18	Test of chapter 3.
	25-Apr-18	(4.2.5) Betatron, (4.3) (4.4) Gas filled ionisation detector
	26-Apr-18	(4.6) Proportional Counter, (4.7) G.M. Counter
	27-Apr-18	(4.10) scintillation counter
	28-Apr-18	Examples -