

Dayanand Mahila Mahavidyalaya, Kurukshetra
Lesson Plan (UG -NEP Second & Fourth Semester - Even Semester)
Session 2024-25 (08.02.2025 to 31.05.2025)

Name of teacher: Mrs. Suman Rani

Subject....Physics..

Date	Class.B.Sc...I	Class.B.Sc..II	Class.....
	Semester....II.....	Semester...IV.....	Semester.....
08.02.2025			
10.02.2025	Unit-I Gradient of a scalar, phy Sig., Line Integ.	Unit-I Young's double slit experiment, coherence	
11.02.2025	Surface and Volume inte. and phy. Sig., Flux of vector field.	Conditions, Fresnel's biprism	
12.02.2025	Guru Ravidass Jayanti		
13.02.2025	Div. and curl of a vector, phy Sig., Gauss Div Thm.	Determination of wave length of Sodium light.	
14.02.2025			
15.02.2025			
17.02.2025	Curl, Stokes's thm	thickness of thin mica-sheet, phase change on reflection.	
18.02.2025	Conservative nature of Electrostatic field.	Interference by Div. of Amplitude Plane parallel	
19.02.2025	Electrostatic Pot., Pot. as line integral.	thin film, production of colours,	
20.02.2025	Potential Diff, Derivation of electric field E from	Interference due to transmitted & reflected light.	
21.02.2025	potential as gradient.		
22.02.2025			
24.02.2025	Derivation of Laplace and Poisson eqn.	Wedge shaped film Newton's Ring	
25.02.2025	Electric Flux, Gauss Law.		
26.02.2025	Maha Shivratri		
27.02.2025	Differential form of Gauss' law	Unit-II Diffraction. Huygens-Fresnel's theory,	
28.02.2025			
01.03.2025			
03.03.2025	Applications of Gauss law	Fresnel's assumptions, rectilinear propagation of light.	

04.03.2025 Tu	Mechanical force of charged surface.	Diff at a straight edge, rectangular slit	
05.03.2025 W	Energy per unit vol.	and Diffraction at a circular aperture.	
06.03.2025 Th	Unit 2: Biot-Savart Law, application - at wire	Diffraction due to a narrow slit.	
07.03.2025			
08.03.2025			
09.03.2025 to 16.03.2025		Holi Vacations	
17.03.2025 F	Test of Unit - 1.	Diffraction due to a narrow wire.	
18.03.2025 T	Current loop as a Mag.	Fraunhofer Diffraction	
19.03.2025 W	Dipole Moment, Ampere's Circuital law	Single slit, double slit	
20.03.2025 Th	Applications: Solenoid, Toroid, properties	Plane transmission grating, spectrum	
21.03.2025			
22.03.2025			
24.03.2025 M	Force on a dipole in an external field,	Test	
25.03.2025 T	Electric current in Atoms	Dispersive power of grating, lt. of resolution	
26.03.2025 W	Electron spin and Magnetic Moment.	Rayleigh criterion.	
27.03.2025 Th	Types of Mag. materials	Resolving Power of telescope and grating	
28.03.2025			
29.03.2025			
31.03.2025	Id-ul-Fitr		
01.04.2025 T	M, H, I, Mag. Susceptibility and permeability	Test.	
02.04.2025 W	Relation b/w B, H & M	Unit-III Polarization by reflection	
03.04.2025 Th	Electronic th ^g of dia & paramagnetism	refraction and scattering, Malus law	
04.04.2025			
05.04.2025			
07.04.2025 M	Langevin's theory Cycle of Magnetization	Ph. of Double refraction	
08.04.2025 T	Hysteresis loop: Energy dissipation.	Huyge's Wave theory of double refraction	
09.04.2025 W	Hysteresis loss and importance.	Nicol prism, Quarter wave	

10.04.2025	Mahavir Jayanti		
11.04.2025			
12.04.2025			
14.04.2025	Dr. B.R. Ambedkar Jayanti		
15.04.2025 T	Test of Unit - 2	Half Wave plate, Production and detection	
16.04.2025 W	Unit 3: Electromag. Induction, Faraday's Law	i) plane polarized light	
17.04.2025 Th	Lenz's Law, Self-Inductance, Mutual Inductance	ii) circularly polarized light. iii) Elliptically	
18.04.2025			
19.04.2025			
21.04.2025 M	Energy Stored in a Mag field, Maxwell's Eq ⁿ , Displacement current,	Optical activity, Fresnel's theory of rotation.	
22.04.2025 Tu	Diff. form & Integral form.	Polarimeter.	
23.04.2025 W	E-M Waves, Transverse Nature, Poynting vector	Unit - 4. Laser, Absorption & Emission	
24.04.2025 Th	Poynting thm. Propagation of plane electro-mag.	Amplification and population Inversion.	
25.04.2025	wave in Free Space & Dielectrics.	Component of Laser	
26.04.2025			
28.04.2025 M	Unit - 4: Electric current, current Density	Properties of laser.	
29.04.2025	Parshu Ram Jayanti		
30.04.2025	Akshay Tritiya		
01.05.2025 Th	Electrical Conductivity ohm's Law, Kirchoff's Law	Types of Laser.	
02.05.2025			
03.05.2025			
05.05.2025 M	Network thm's, thevenin's thm, Propagation of EM	He-Ne & Ruby Laser	
06.05.2025 T	Waves in Free space & Dielectrics.	Application of laser.	
07.05.2025 W	Resonance ckt, Phasor,	Fiber optics, Properties, Acceptance	
08.05.2025 Th	Complex Reactance and Impedance	angle and numerical aperture.	
09.05.2025			
10.05.2025			

12.05.2025 M	RL, LC, RC Circuits,	Types of optical fibre	
13.05.2025 T	Series LCR Circuits,	Advantages & Disadvantages	
14.05.2025 W	Resonance, Power Dissipation	Application, fibre	
15.05.2025 Th	Quality Factor	Optic Sensors,	
16.05.2025			
17.05.2025			
19.05.2025 M	Band width, Parallel LCR ckt.	Fibre Bragg Grating	
20.05.2025 T	Revision	Revision.	
21.05.2025 W	Test Unit - 3	Test Unit - 3	
22.05.2025 Th	Revision	Revision	
23.05.2025			
24.05.2025			
26.05.2025 M	Test Unit - 4	Test Unit - 4	
27.05.2025 T	Revision	Revision	
28.05.2025 W	Revision.	Revision.	
29.05.2025	Maharana Pratap Jayanti		
30.05.2025			
31.05.2025			
01.06.2025	Examination Onwards		

Lumen

Dayanand Mahila Mahavidyalaya, Kurukshetra
Lesson Plan (UG & PG Final Year - Even Semester)

Session 2024-25 (01.01.2025 to 30.04.2025)

Name of teacher: Mhs. Suman Rani

Subject... Physics

Date	Class.B.Sc.:(NM+CS)	Class.B.Sc.	Class.....
	Semester...VI.....	Semester...VI.....	Semester.....
01.01.2025 W	Unit I: Intro, emission and absorption spectra,	Crystalline and glassy forms, liquid crystals,	
02.01.2025 Th	At. Spectra, Wave no., Spec. of H-atom in Balmer Series	Crystal structure, periodicity, lattice and bases	
03.01.2025			
04.01.2025			
06.01.2025	Guru Gobind Singh Ji Jayanti		
07.01.2025 Tu	Bohr atomic Model, Spec. of H-atom, Un-quantized States.		
08.01.2025 Wed	Continuous spectra, Spectral Series in absorption spectra	Crystal translational vector and axes, Unit cell	
09.01.2025 Thu	Effect of nuclear motion Variation in Rydberg constant	Primitive Cell, Wigner Seitz Primitive Cell, Symmetry of	
10.01.2025			
11.01.2025			
13.01.2025 M	Short coming of Bohr's theory, Wilson Sommer field.		
14.01.2025 Tue	De-broglie interpretation, Bohr's corresponding prin.		
15.01.2025 Wed	Sommerfeld's Extension of Bohr's Model Relativistic corr.	Bravais Lattice in two and three dimension.	
16.01.2025 Thu	Shortcomings, Vector atom model, Space quantization.	Crystal planes and Miller indices.	
17.01.2025			
18.01.2025			
20.01.2025 M	Electron spin, coupling of orbital and spin angular m.m.		
21.01.2025 Tue	Spectroscopic term and their notation,		
22.01.2025 Wed	quantum number associated with atom Vector Model,	Interplanar spacing, Crystal Structures of Zinc Sulphide	
23.01.2025 Thurs	Transition probability and selection rules.	Sodium chloride and Diamond.	
24.01.2025			
25.01.2025			

Date	Class...B.Sc....	Class...B.Sc....	Class.....
	Semester...VI.....	Semester...VI.....	Semester.....
27.01.2025 M	Unit 2 Orbital Dipole Moment, behaviour of mag. dipole		
28.01.2025 Tue	Larmor's precession and theorem.		
29.01.2025 Wed	Penetrating and non-pen. orbits, Penetrating orbits on the classical Model,	Unit 2: X-ray diffraction, Bragg's Law and Experi.	
30.01.2025 Thu	Quantum defect,	X-ray diffraction methods.	
31.01.2025			
01.02.2025			
03.02.2025 M	Spin orbit interaction for penetrating and non-pen. orbits.		
04.02.2025 Tue	Quantum mechanical relativity correction, H- Fine Structure		
05.02.2025 Wed	Main features of Alkali Spectra and their theoretical	K-space and reciprocal lattice and its phy. Signi.	
06.02.2025 Thu	Term Series and limits, Rydberg-Ritz combination	Reciprocal lattice vectors,	
07.02.2025			
08.02.2025			
10.02.2025 M	Absorption Spectra of Alkali atoms, observed		
11.02.2025 Tue	doublet Fine Structure		
12.02.2025	Guru Ravidass Jayanti		
13.02.2025 Thu	Intensity rules for doublets.	Reciprocal lattice to a simple cubic lattice,	
14.02.2025			
15.02.2025			
17.02.2025 M	Comparison of Alkali spectra and H-spectra		
18.02.2025 Tue	Unit: 3		
19.02.2025 Wed	Features of spectra of Alkaline - earth elements,	B.C.C and F.C.C.	
20.02.2025 Thu	Vector Model for two valance e^-	Test of Unit -1, 2.	
21.02.2025			
22.02.2025			
24.02.2025 M	Test Unit - 2		
25.02.2025 Tue	Coupling Schemes: LS, JJ coupling.		
26.02.2025	Maha Shivratri		

Date	Class...B.Sc....	Class...B.Sc....	Class.....
	Semester...VI.....	Semester...VI.....	Semester.....
27.02.2025 Thu	Interaction energy in s coupling, Lande interval	Unit:3 Historical intro, Survey of Superconductivity	
28.02.2025			
01.03.2025			
03.03.2025 M	Pauli principal and periodic classification, Interaction in M,		
04.03.2025 Tue	Equivalent electrons, Two valence e ⁻ system.		
05.03.2025 Wed	Comparison of spectral terms	Super Conducting Systems, High Tc conductors, Isotopic	
06.03.2025 Thu	Hyperfine structure of spectral lines, Isotopic	Critical Magnetic field, Meissner Effect	
07.03.2025			
08.03.2025			
09.03.2025 to 16.03.2025		Holi Vacations	
17.03.2025 M	Nuclear spin.		
18.03.2025 Tue	Unit-4 Zeeman Effect,		
19.03.2025 Wed	Experimental Setup for studying Zeeman effect.	London Theory and Pippard's equation, classification of S.	
20.03.2025 Thu	Explanation of normal Zeeman Effect.	Type I & Type II, BCS Theory	
21.03.2025			
22.03.2025			
24.03.2025 M	Test Unit - 3		
25.03.2025 Tue	Zeeman pattern of D &		
26.03.2025 Wed	D ₂ lines of Na-atom.	Flux quantization, Josephson Effect (AC & DC),	
27.03.2025 Thu	Paschen-Back effect of a single valence e ⁻	Practical Application, Limit.	
28.03.2025			
29.03.2025			
31.03.2025	Id-ul-Fitr		
01.04.2025 Tue	Weak field Stark effect of H-atom.		
02.04.2025 Wed	Molecular Physics,	Power Applications.	
03.04.2025 Thu	Electronic states of diatomic	Unit 4: Definition, Length Scale, technology.	
04.04.2025			

Date	Class..B.Sc.....	Class.B.Sc.....	Class.....
	Semester..VI.....	Semester..VI.....	Semester.....
05.04.2025			
07.04.2025 M	Rotational Spectroscopy		
08.04.2025 Tue	IR and Microwave		
09.04.2025 Wed	Vibrational Spectroscopy	History, Benefits and challenges	
10.04.2025	Mahavir Jayanti		
11.04.2025			
12.04.2025			
14.04.2025	Dr. B.R. Ambedkar Jayanti		
15.04.2025 Tue	Rotation Model		
16.04.2025 Wed	Raman Effect	Molecular assembly concept, advanced capabilities.	
17.04.2025 Thu	Electronic spectroscopy	Vision and objective of Nano-technology.	
18.04.2025			
19.04.2025			
21.04.2025 M	Unit 4 : Test		
22.04.2025 Tue	Revision	Nanotechnology in Different fields.	
23.04.2025 Wed	Revision		
24.04.2025 Thu	Revision	Test.	
25.04.2025			
26.04.2025			
28.04.2025 M	Revision.		
29.04.2025	Parshu Ram Jayanti		
30.04.2025	Akshay Tritiya		
01.05.2025	Examination Onwards		

Suman