LESSON PLAN

Name Of The Faculty : Mrs. Pooja Saini

Discipline : CSE/Civil/Mech./ECE/Electrical Engg.

Semester : 2nd Sem

Subject : Applied Physics-II

Lession Plan Duration : -- weeks (from March, 2023 to June, 2023)

Work Load (Lecture/Practical) per week (in hours) : Lecture – 02 , Practicals -02

Week	Theory		Practical	
	Lecture day	Topic (including assignment/test)	Practi -cal day	Торіс
1	1	• Wave motion - Introduction	1	Familiarization with apparatus
	2	• Terms - displacement, amplitude, time period, frequency, wavelength, wave velocity,		(resistor, rheostat, key, ammeter, volt meter, telescope,
	3	Transverse wave motion	-	microscope etc)
	4	longitudinal wave motion	-	
2	5	Difference b/w Transverse & longitudinal wave motion		
	6	 relationship among wave velocity, frequency and wave length . Simple Harmonic Motion (SHM): definition,examples 		
	7	CantileverVibrations & its types	2	To find the time period of simple pendulum
	8	 Acoustics of buildings – reverberation reverberation time 		
3	9	• Echo, noise, coefficient of absorption of sound		

	10			
		• methods to control reverberation time.		
	11	Ultrasonics	3	To study variation of time period of a simple pendulum with change in length of pendulum
	12	• Engineering applications of Ultrasonics	-	
4	13	Optics – Introduction		
	14	Reflection of LightRefraction of Light		
	15	refractive indexTotal internal reflectionCritical angle	4	To find and verify the time period of cantilever
	16	 Applications of TIR conditions for TIR		
5	17	 Super Position of Waves, Definition of Interference, Diffraction and Polarization of Waves Microscope, telescope& their uses 		
	18	 Introduction of Lens, lens Formula (no derivation), Power of Lens Based numerical 		
	19	 Assignment – Ultrasonics 	5	To find Ohm's laws by plotting
	20	Test		a graph between voltage and
6	21	Electrostatics and Electricity – Introduction		current
	22	Coulombs lawUnit charge		
7	23	Electric fieldElectric lines of force, its properties	6	To study colour coding scheme of resistance
	24	Electric IntensityElectric Flux		
8	25	 Electric potential Electric field intensity due to a point charge. 		
	26	• Gauss law(Statement and derivation)		
	27	CapacitorCapacitance	7	To verify laws of resistance in series combination
9	28	Series combination of capacitors		
	29	 parallel combination of capacitors Ohm's Laws		
10	30	Numerical based on Grouping of capacitors		

	31	Classification of Materials and their Properties	8	To verify laws of resistance in parallel combination
11	32	 Types of materials Conductor, Semi-Conductor, Insulator and Dielectric with examples 		
	33	• intrinsic and extrinsic semiconductors (Introduction only)	9	To find resistance of galvanometer by half deflection method
12	34	 Introduction to Magnetism Types of magnetic materials Dia materials with example 		
	35	• para and ferromagnetic materials with examples	10	To verify laws of reflection of light using mirror
43	36	Magnetic fieldmagnetic Flux		
13	37	Magnetic lines of force	11	To verify laws of refraction using glass slab
	38	• Electromagnetic induction (Definition)		
	39	Test	12	To find the focal length of a
14	40	Modern Physics - Introduction		concave lens using a convex lens
	41	 Lasers: full form, Principle, absorption, spontaneous emission, stimulated emission, population inversion Engineering and applications of laser 	13	revision
15	42	 Fibre optics – Definition, principle, parts, light propagation, fiber types (mono- mode, multi-mode) Applications in medical, tele- communication and sensors 	-	
	43	• Introduction to nanotechnology- Definition of nano materials with examples, properties at nano scale	14	revision
	44	 Applications of nanotechnology(brief) 		
16		Revision and test	15	revision