



Physics by fiziks

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Study Plan of Oscillations, Waves and Optics for Pre-recorded Batches

(For IIT-JAM, JEST, TIFR and M.Sc Entrance and B.Sc Students)

Days	Enter Your Dates	Topics
		PART-A: Oscillations and Waves
Day: 1		Lecture 1: Simple Harmonic Motion Part-1
		Lecture 2: Simple Harmonic Motion Part-2
Day: 2		Lecture 3: Simple Harmonic Motion Part-3
		Lecture 4: Simple Harmonic Motion Part-4
		Solve Assignment No. 6: Simple Harmonic Oscillations (Lect-1 to Lect-4)
Day: 3		Lecture 5: Superposition of SHM Part-1
		Lecture 6: Superposition of SHM Part-2
Day: 4		Lecture 7: Superposition of SHM Part-3
		Lecture 8: Damped Oscillations
		Solve Assignment No. 1: Superposition of Harmonic Oscillations (Lect-5 to Lect-7)
Day: 5		Lecture 9: Forced Oscillations Part-1
		Lecture 10: Forced Oscillations Part-2
		Solve Assignment No. 2: Damped Harmonic Oscillations & Forced Oscillations (Lect-8 to Lect-10)
Day: 6		Class Test 1: Simple Harmonic Motions and Its Superposition (Lect-1 to Lect-7)
Day: 7		Class Test 2: Damped Harmonic Oscillations & Forced Oscillations (Lect-8 to Lect-10)
Day: 8		Lecture 11: Wave Motion Part-1
		Lecture 12: Wave Motion Part-2
Day: 9		Lecture 13: Wave Motion Part-3
		Lecture 14: Wave Motion Part-4
		Solve Assignment No. 3: Wave Motion (Lect-11 to Lect-14)
Day: 10		Lecture 15: Phase and Group Velocity
		Lecture 16: Doppler's Effect
		Solve Assignment No. 4: Phase and Group Velocity (Lect-15) Solve Assignment No. 5: Doppler Effect (Lect-16)
PART-B: Optics		
Day: 11		Lecture 17: Superposition Principle and coherence Sources-Interference
		Lecture 18: Young Double Slit Experiment Part-1
		Solve Assignment No. 1: Superposition Principle (Lect-17)
Day: 12		Lecture 19: Young Double Slit Experiment Part-2
		Lecture 20: Young Double Slit Experiment Part-3
		Solve Assignment No. 2: Young Double Slit Experiment (Lect-18 to Lect-19)
Day: 13		Revision
Day: 14		Class Test 3: Wave Motion, Phase & Group Velocity and Doppler Effect (Lect-11 to Lect-16)
Day: 15		Lecture 21: N-Slits interference
		Lecture 22: Fresnel Bi-Prism Interference
		Solve Assignment No. 3: Young Double Slit Experiment (Lect-20 to Lect-21)
Day: 16		Lecture 23: Llyod's Mirror
		Lecture 24: Thin Film Interference
Day: 17		Lecture 25: Wedge Shaped Films
		Lecture 26: Newton Rings Part-1
		Solve Assignment No. 4: Fresnel Biprism and Thin Film Interference (Lect-22 to Lect-25)

Day: 18	Lecture 27: Newton Rings Part-2
	Lecture 28: Single-Slit Diffraction
	Solve Assignment No. 5: Newton Ring Experiment (Lect-26 to Lect-27)
Day: 19	Lecture 29: Double-Slit Diffraction
	Lecture 30: Diffraction Grating Part-1
	Lecture 31: Diffraction Grating Part-2
Day: 20	Solve Assignment No. 6 & 7: Diffraction of Light (Lect-28 to Lect-31)
Day: 21	Class Test 4: Interference of Light (Lect-17 to Lect-27)
Day: 22	Lecture 32: Polarisation by Reflection and Malus Law
	Lecture 33: Problems on Malus Law
Day: 23	Lecture 34: Polarisation by Double Refraction
	Lecture 35: Nicol Prism
Day: 24	Lecture 36: Production of Elliptical and Circular Polarised Light
	Lecture 37: Quarter-Wave and Half-Wave Plate Polarisation
Day: 25	Lecture 38: Analysis of Polarised Light
	Lecture 39: State of Polarisation
Day: 26	Lecture 40: Problems on Double Refracting Crystal
	Lecture 41: Wollaston Prism and Rochon Prism
Day: 27	Solve Assignment No. 8 & 9: Polarisation of Light (Lect-32 to Lect-41)
Day: 28	Class Test 5: Diffraction of Light (Lect-28 to Lect-31)
Day: 29	Lecture 42: Law of Reflection and Plane Mirror
	Lecture 43: Reflection from Spherical Mirror
Day: 30	Lecture 44: Magnification and Problem on Plane & Spherical Mirror
	Lecture 45: Law of Refraction
Day: 31	Lecture 46: Spherical Lenses
	Solve Assignment No. 10: Ray Optics (Lect-42 to Lect-46)
Day: 32	Class Test 6: Polarisation of Light (Lect-32 to Lect-41)
Day: 33	Class Test 7: Ray Optics (Lect-42 to Lect-46)