

**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING****Course Code / Name : U15PH101/PHYSICS-I****Class (Year / Programme / Department / Section): I/BE/CSE/A&B****LESSON PLAN**

UNIT -1 (Interference)				
Session No	Topic	Duration in Minutes	Teaching Aid	Book Referred
1	Superposition principle, intensity distribution	45	BB	R2
2	condition for interference, coherent and non coherent sources	45	BB	R2
3	classification of fringes	45	BB	R2
4	Engineering application of interference phenomena	45	BB	R2
5	Michelson Interferometer, Air wedge, Anti reflection coating	45	BB	R2
6	Fiber optics – Principle and Propagation of light in optical fibers	45	BB	R2
7	Numerical Aperture and Acceptance angle-applications	45	BB	R2
8	Displacement sensor, Temperature sensor	45	BB	R2
UNIT -2 (Diffraction & Polarisation)				
1	Fraunhofer diffraction for single slit and double slit,	45	BB	R2
2	diffraction grating, resolving power of a grating	45	BB	R2
3	image forming systems.	45	BB	R2
4	Propagation of electromagnetic wave and its representation	45	BB	R2
5	concept of phase, random, plane, circular and elliptical	45	BB	R2
6	Polarisation of light by reflection, polariser (Malus law)	45	BB	R2
UNIT -3 (Dynamics of Fluid)				
1	bernoullis theorem	45	BB	R1
2	Comparison of Viscosity	45	BB	R1
3	ostwalds viscometer	45	BB	R1
4	poiseuilles equation	45	BB	R1
5	stokes formula	45	BB	R1
6	effects of temperature	45	BB	R1
UNIT -4(Thermal Physics)				
1	Kinetic theory of gases	45	BB	R1
2	Van der waal's equation of state	45	BB	R1
3	Maxwellian dist., imperfect gases	45	BB	R1
4	Van der waal's equation of state	45	BB	R1
5	Convection, production and measurement of low and high temperature	45	BB	R1
6	Thermal conductivity of bad conductor-	45	BB	R1
7	Lee's disc	45	BB	R1
8	and its derivation,	45	BB	R1
9	IR Camera	45	BB	R1
UNIT -5(Crystal Physics)				
1	Lattice	45	PPT	R1
2	Miller indices	45	PPT	R1
3	Bravais space lattice	45	PPT	R1

4	Lattice planes	45	PPT	R1
5	spacing in cubic lattice	45	PPT	R1
6	Packing Factor for SC, BCC, FCC and HCP structures	45	PPT	R2
7	Calculation of number of atoms per unit cell	45	PPT	R1