

Lesson Plan (2021-22)

Name of the Assistant/ Associate Professor : Devender Kumar

Class and Section: B.Sc.4th semester

Subject: PHYSICS

Paper: STATISTICAL MECHANICS AND OPTICS II

Date	Topics
21 Mar 2022	Probability
22 Mar 2022	some probability considerations
24 Mar 2022	combinations possessing maximum probability
25 Mar 2022	Numerical problem
26 Mar 2022	Distribution of molecules in two boxes
28 Mar 2022	Case with weightage (general)
29 Mar 2022	distribution of molecules in two boxes
30 Mar 2022	Phase space,
31 Mar 2022	Microstates, macrostates,
01 April 2022	statistical fluctuations constraints, accessibleStates
02 April 2022	Thermodynamical probability.
04 April 2022	Numerical Problems
05 April 2022	Revision
06 April 2022	Test
07 April 2022	Postulates of Statistical Physics
08 April 2022	Division of Phase space into cells
09 April 2022	Condition of equilibrium between two system in thermal contact
11 April 2022	b-Parameter.
12 April 2022	Entropy
13 April 2022	Entropy andProbability
15 April 2022	Boltzman's distribution law
16 April 2022	Evaluation of A and b
18 April 2022	Bose-Einstein statistics
19 April 2022	Application of B.E. Statistics to Plancks's radiation law
20 April 2022	B.E. gas
21 April 2022	Numerical Problems
22 April 2022	Revision
23 April 2022	Test
25 April 2022	Basics Fermi-Dirac statistics,
26 April 2022	Fermi-Dirac statistics,
27 April 2022	M.B. Law

28 April 2022	Basics Fermi-Dirac statistics,
29 April 2022	Fermi-Dirac statistics,
30 April 2022	B.E. Degeneracy
02 May 2022	M.B. Law as limiting case of B.E. Degeneracy
04 May 2022	B.E.,
05 May 2022	Condensation
06 May 2022	F.D. Gas 1
07 May 2022	electron gas in metals
09 May 2022	Zero point energy
10 May 2022	Specific heat of metals and its solution 1
11 May 2022	Specific heat of metals and its solution 2
12 May 2022	Numerical Problems
13 May 2022	Revision
14 May 2022	Test
16 May 2022	Introduction to Optics
17 May 2022	Interference by Division of Amplitude :Colour of thin films,
18 May 2022	wedge shaped film
19 May 2022	Newton's rings
20 May 2022	Interferometers: Michelson's interferometer
21 May 2022	-Do-
23 May 2022	application (I) Standardisation of a meter
24 May 2022	(II) determination of wave length
25 May 2022	Fresnel's Diffraction
26 May 2022	Fresnel's half period zones
27 May 2022	zone plate
28 May 2022	diffraction at a straight edge
30 May 2022	diffraction at a rectangular slit
31 May 2022	diffraction at a circular aperture
01 June 2022	problems
03 June 2022	Revision
04 June 2022	Test

06 June 2022	Frainhoffer diffraction
07 June 2022	One slit diffraction
08 June 2022	Two slit diffraction
09 June 2022	N-slit diffraction
10 June 2022	Frainhoffer diffraction
11 June 2022	Plane transmission granting spectrum
13 June 2022	Dispersive power of a grating
15 June 2022	resolving power of telescope and a grating
16 June 2022	problems
17 June 2022	Revision
18 June 2022	Test
20 June 2022	Polarization
21 June 2022	Polarisation
22 June 2022	Double Refraction
23 June 2022	Huygen's wave theory of double refraction
24 June 2022	Analysis of Palorised light : Nicol prism
25 June 2022	Quarter wave plate
27 June 2022	half wave plate,
28 June 2022	production and detection of polarized light
29 June 2022	Optical activity,
30 June 2022	Fresnel's theory of rotation, Specific rotation,
01 July 2022	Polarimeters
02 July 2022	Problems
28 June 2022	Problems
29 June 2022	Problems
30 June 2022	Test
01 July 2022	Revision
02 July 2022	Revision
04 July 2022	Revision
05 July 2022	Revision
06 July 2022	Revision
07 July 2022	Revision
08 July 2022	Revision
09 July 2022	Revision
11 July 2022	Revision
12 July 2022	Revision

13 July 2022	Continued.....
14 July 2022	Continued.....
15 July 2022	Continued.....
16 July 2022	Continued.....