

LESSON PLAN

PHYSICS

Name of the Assistant Professor: Sundeep Kumar

Class and Section: B.Sc 4th Sem (PHYSICS)

Subject Lesson Plan: 16 Weeks (from 21/03/2022 to 10/07/2022)

Total Working days: 92 days

Week 1
Chapter: B.Sc 4th Sem : Statistical Mechanics
Week 1 Day 1 Date : 21/03/2022 B.Sc 4th Sem: Probability
Week 1 Day 2 Date : 22/03/2022 B.Sc 4th Sem: some probability considerations
Week 1 Day 3 Date : 23/03/2022 Holiday : Shahidi Diwas
Week 1 Day 4 Date : 24/03/2022 B.Sc 4th Sem: combinations possessing maximum probability
Week 1 Day 5 Date : 25/03/2022 B.Sc 4th Sem: combinations possessing minimum probability
Week 1 Day 6 Date : 26/03/2022 B.Sc 4th Sem: distribution of molecules in two boxes
Week 2
Chapter: B.Sc 4th Sem :Statistical Mechanics
Assignments: Tossing of four coins (like and unlike)
Week 2 Day 1 Date : 28/03/2022 B.Sc 4th Sem: Case with weightage (general)
Week 2 Day 2 Date : 29/03/2022 B.Sc 4th Sem:Phase space
Week 2 Day 3 Date : 30/03/2022 B.Sc 4th Sem: microstates and macrostates
Week 2 Day 4 Date : 31/03/2022 B.Sc 4th Sem:, statistical fluctuations
Week 2 Day 5 Date : 01/04/2022 B.Sc 4th Sem: constraints and accessible States
Week 3 Day 6 Date : 02/04/2022 B.Sc 4th Sem:Thermodynamical probability
Week 3
Chapter: B.Sc 4th Sem Statistical Mechanics
Assignments: microstates and macrostates
Week 3 Day 1 Date : 04/04/2022 B.Sc 4th Sem: Postulates of Statistical Physics
Week 3 Day 2 Date : 05/04/2022 B.Sc 4th Sem: Division of Phase space into cells
Week 3 Day 3 Date : 06/04/2022

B.Sc 4th Sem:Condition of equilibrium between two system in thermal contact,b-Parameter
Week 3 Day 4 Date : 07/04/2022 B.Sc 4th Sem: Entropy and Probability
Week 3 Day 5 Date : 08/04/2022 B.Sc 4th Sem: Boltzman's distribution law
Week 3 Day 6 Date : 09/04/2022 B.Sc 4th Sem: take the test
Week 4
Chapter: B.Sc 4th Sem Statistical Mechanics
Assignments: Condition of equilibrium between two system in thermal contact,b-Parameter
Week 4 Day 1 Date : 11/04/2022 B.Sc 4th Sem: Evaluation of A and b
Week 4 Day 2 Date : 12/04/2022 B.Sc 4th Sem: Bose-Einstein statistics
Week 4 Day 3 Date : 13/04/2022 B.Sc 4th Sem: Application of B.E. Statistics to Plancks's radiation law
Week 4 Day 4 Date : 14/04/2022 Holiday : Ambedkar Jayanti
Week 4 Day 5 Date : 15/04/2022 B.Sc 4th Sem: B.E. gas
Week 4 Day 6 Date : 16/04/2022 B.Sc 4th Sem: take the problems and numericals
Week 5
Chapter: B.Sc 4th Sem Statistical Mechanics
Assignments: Bose-Einstein statistics
Week 5 Day 1 Date : 18/04/2022 B.Sc 4th Sem: Fermi-Dirac statistics
Week 5 Day 2 Date : 19/04/2022 B.Sc 4th Sem: M.B. Law as limiting case of B.E
Week 5 Day 3 Date : 20/04/2022 B.Sc 4th Sem: Degeneracy and B.E.
Week 5 Day 4 Date : 21/04/2022 B.Sc 4th Sem: Condensation
Week 5 Day 5 Date : 22/04/2022 B.Sc 4th Sem: . F.D. Gas
Week 5 Day 6 Date : 23/04/2022 B.Sc 4th Sem: electron gas in metals
Week 6
Chapter: B.Sc 4th Sem : Statistical Mechanics
Assignments: Fermi-Dirac statistics
Week 6 Day 1 Date : 25/04/2022 B.Sc 4th Sem: Zero point energy
Week 6 Day 2 Date : 26/04/2022

B.Sc 4th Sem: take the test
Week 6 Day 3 Date : 27/04/2022
B.Sc 4th Sem: Specific heat of metals and its solution
Week 6 Day 4 Date : 28/04/2022
B.Sc 4th Sem: short questions and numericals
Week 6 Day 5 Date : 29/04/2022
B.Sc 4th Sem: revision
Week 6 Day 6 Date : 30/04/2022
B.Sc 4th Sem: Revision
Week 7

Chapter: B.Sc 4th Sem : Interference by Division of Amplitude

Week 7 Day 1 Date : 02/05/2022
B.Sc 4th Sem: Colour of thin, films
Week 7 Day 2 Date : 03/05/2022
Holiday : Parshuram Jayanti
Week 7 Day 3 Date : 04/05/2022
B.Sc 4th Sem: wedge shaped film
Week 7 Day 4 Date : 05/05/2022
B.Sc 4th Sem: Newton's rings
Week 7 Day 5 Date : 06/05/2022
B.Sc 4th Sem: Interferometers: Michelson's interferometer
Week 7 Day 6 Date : 07/05/2022
B.Sc 4th Sem: and its application to (I) Standardisation of a meter
Week 8

Chapter: B.Sc 4th Sem : Interference by Division of Amplitude

Assignments: Newton's rings
Week 8 Day 1 Date : 09/05/2022
B.Sc 4th Sem: (II) determination of wave length
Week 8 Day 2 Date : 10/05/2022
B.Sc 4th Sem: . Fresnel's Diffraction
Week 8 Day 3 Date : 11/05/2022
B.Sc 4th Sem: Fresnel's half period zones
Week 8 Day 4 Date : 12/05/2022
B.Sc 4th Sem: zone plate
Week 8 Day 5 Date : 13/05/2022
B.Sc 4th Sem: diffraction at a straight edge
Week 8 Day 6 Date : 14/05/2022
B.Sc 4th Sem: rectangular slit and circular apperture

Week 9

Chapter: B.Sc 4th Sem : Fraunhofer diffraction

Assignments: Fresnel's Diffraction
Week 9 Day 1 Date : 16/05/2022
B.Sc 4th Sem: One slit diffraction

Week 9 Day 2 Date : 17/05/2022 B.Sc 4th Sem: Two slit diffraction
Week 9 Day 3 Date : 18/05/2022 B.Sc 4th Sem: N-slit diffraction
Week 9 Day 4 Date : 19/05/2022 B.Sc 4th Sem: Plane transmission grating spectrum
Week 9 Day 5 Date : 20/05/2022 B.Sc 4th Sem: take the test
Week 9 Day 6 Date : 21/05/2022 B.Sc 4th Sem: Dispersive power of a grating
Week 10
Chapter: B.Sc 4th Sem : Fraunhofer diffraction
Assignments: Plane transmission grating spectrum
Week 10 Day 1 Date : 23/05/2022 B.Sc 4th Sem: Limit of resolution
Week 10 Day 2 Date : 24/05/2022 B.Sc 4th Sem: Rayleigh's criterion
Week 10 Day 3 Date : 25/05/2022 B.Sc 4th Sem: resolving power of telescope and a grating
Week 10 Day 4 Date : 26/05/2022 B.Sc 4th Sem: Short questions and numericals
Week 10 Day 5 Date : 27/05/2022 B.Sc 4th Sem: take the problems
Week 10 Day 6 Date : 28/05/2022 B.Sc 4th Sem: take the test
Week 11
Chapter: B.Sc 4th Sem : Polarization
Assignments: resolving power of telescope and a grating
Week 11 Day 1 Date : 30/05/2022 B.Sc 4th Sem: Polarisation and Double Refraction
Week 11 Day 2 Date : 31/05/2022 B.Sc 4th Sem: Polarisation by reflection
Week 11 Day 3 Date : 01/06/2022 B.Sc 4th Sem: Polarisation by scattering
Week 11 Day 4 Date : 02/06/2022 Holiday ; Maharana Pratap Jayanti
Week 11 Day 5 Date : 03/06/2022 B.Sc 4th Sem: Malus law
Week 11 Day 6 Date : 04/06/2022 B.Sc 4th Sem: Phenomenon of double refraction
Week 12
Chapter: B.Sc 4th Sem : Polarization
Assignments: Polarisation and Double Refraction
Week 12 Day 1 Date : 06/06/2022

B.Sc 4th Sem:Huygen's wave theory of double refraction (Normal and oblique incidence)
Week 12 Day 2 Date : 07/06/2022 B.Sc 4th Sem: Analysis of Polarised light : Nicol prism
Week 12 Day 3 Date : 08/06/2022 B.Sc 4th Sem: , Quarter wave plate and half wave plate
Week 12 Day 4 Date : 09/06/2022 B.Sc 4th Sem: production and detection of (i) Plane polarized light
Week 12 Day 5 Date : 10/06/2022 B.Sc 4th Sem: take the problems
Week 12 Day 6 Date : 11/06/2022 B.Sc 4th Sem: (ii) Circularly polarized light
Week 13
Chapter: B.Sc 4th Sem : Polarization
Assignments: Huygen's wave theory of double refraction (Normal and oblique incidence)
Week 13 Day 1 Date : 13/06/2022 B.Sc 4th Sem:(iii)Elliptically polarized light
Week 13 Day 2 Date : 14/06/2022 Holiday: Sant Kabir Jayanti
Week 13 Day 3 Date : 15/06/2022 B.Sc 4th Sem: , Optical activity
Week 13 Day 4 Date : 16/06/2022 B.Sc 4th Sem: Fresnel's theory of rotation
Week 13 Day 5 Date : 17/06/2022 B.Sc 4th Sem: Specific rotation
Week 13 Day 6 Date : 18/06/2022 B.Sc 4th Sem: short questions and numericals
Week 14
Chapter: B.Sc 4th Sem :
Assignments: Fresnel's theory of rotation
Week 14 Day 1 Date : 20/06/2022 B.Sc 4th Sem:Polarimeters
Week 14 Day 2 Date : 21/06/2022 B.Sc 4th Sem: (half shade and Biquartz)
Week 14 Day 3 Date : 22/06/2022 B.Sc 4th Sem: Numericals & problems
Week 14 Day 4 Date : 23/06/2022 B.Sc 4th Sem: Take the test
Week 14 Day 5 Date : 24/06/2022 B.Sc 4th Sem: Revision
Week 14 Day 6 Date : 25/06/2022 B.Sc 4th Sem: Revision
Week 15
Chapter: B.Sc 4th Sem :

Revision of Statistical Mechanics

Week 16

Chapter: B.Sc 4th Sem :

Revision of Optics