

Dayanand Mahila Mahavidyalaya, Kurukshetra

Lesson Plan (Even Semester)

Session 2021-22 (12.04.2022 to 19.07.2022)

Name of Teacher.....Mrs. Kiran Ganotra.....

SubjectPhysics.....

Week	Date	Class ...BSc 2nd(NM).....	Class ...BSc 2nd(C.Sc).....
		Semester4th...	Semester ...4th.....
	12.04.2022	Microscopic and macroscopic system	Microscopic and macroscopic system
	13.04.2022	events mutually exclusive, dependent and independent	events mutually exclusive, dependent and independent
	14.04.2022	Dr. B.R. Ambedkar Jayanti/Mahavir Jayanti	
	15.04.2022	probability, statistical probability	probability, statistical probability
	16.04.2022	A-prior probability and relation between them	A-prior probability and relation between them
	18.04.2022	probability theorems, combination processing maximum minimum probability	probability theorems, combination processing maximum minimum probability
	19.04.2022	tossing of 2,3 and any number of coins	tossing of 2,3 and any number of coins
	20.04.2022	Permutations and combinations, distribution of N distinguishable and indistinguishable particles in two boxes	Permutations and combinations, distribution of N distinguishable and indistinguishable particles in two boxes
	21.04.2022	micro and macro states,thermodynamical probability	micro and macro states,thermodynamical probability
	22.04.2022	constraints and accessible state	constraints and accessible state
	23.04.2022	statistical fluctuations, general distribution of distinguishable particles in compartment of different sizes	statistical fluctuations, general distribution of distinguishable particles in compartment of different sizes
	25.04.2022	conditions of equilibrium between two systems in thermal contact	conditions of equilibrium between two systems in thermal contact
	26.04.2022	beta - parameter	beta - parameter
	27.04.2022	Entropy and probability (Boltzman's relations)'	Entropy and probability (Boltzman's relations)'
	28.04.2022	Revision	Revision
	29.04.2022	Polarization by reflection	Polarization by reflection
	30.04.2022	Polarization by refraction, scattering	Polarization by refraction, scattering
	02.05.2022	Malus law	Malus law
	03.05.2022	Parshuram Jayanti/Id-ul-Fitr	
	04.05.2022	phenomenon of double refraction	phenomenon of double refraction
	05.05.2022	Analysis of polarized light	Analysis of polarized light
	06.05.2022	Nicol prism	Nicol prism
	07.05.2022	quarter wave plate and half wave plate	quarter wave plate and half wave plate
	09.05.2022	production and detection of plane polarized light	production and detection of plane polarized light
	10.05.2022	elliptically polarized light	elliptically polarized light
	11.05.2022	optical activity	optical activity
	12.05.2022	Fresne's theory of optical rotation	Fresne's theory of optical rotation
	13.05.2022	specific rotation	specific rotation
	14.05.2022	polarimeters (half shade and biquartz)	polarimeters (half shade and biquartz)
	16.05.2022	revision	revision
	17.05.2022	Revision	Revision
	18.05.2022	postulate of statistical physics	postulate of statistical physics

19.05.2022	phase space	phase space
20.05.2022	division of phase space into cells	division of phase space into cells
21.05.2022	three kinds of statistics	three kinds of statistics
23.05.2022	basic approach in three statistics	basic approach in three statistics
24.05.2022	M.B statistics applied to an ideal gas in equilibrium- energy distribution law (including evaluation of alpha and beta)	M.B statistics applied to an ideal gas in equilibrium- energy distribution law (including evaluation of alpha and beta)
25.05.2022	speed distribution law	speed distribution law
26.05.2022	velocity distribution law	velocity distribution law
27.05.2022	expression for average speed,r.m.s speed	expression for average speed,r.m.s speed
28.05.2022	average velocity, r.m.s velocity	average velocity, r.m.s velocity
30.05.2022	most probable energy	most probable energy
31.05.2022	mean energy for maxwellian distribution	mean energy for maxwellian distribution
01.06.2022	Revision	Revision
02.06.2022	Maharana Pratap Jayanti	
03.06.2022	Fourier theorem and Fourier series	Fourier theorem and Fourier series
04.06.2022	evaluation of Fourier coefficient	evaluation of Fourier coefficient
06.06.2022	importance and limitations of Fourier theorem	importance and limitations of Fourier theorem
07.06.2022	even and odd functions	even and odd functions
08.06.2022	Fourier series of functions between 0 to 2pi	Fourier series of functions between 0 to 2pi
09.06.2022	Fourier series of functions between -pi to pi	Fourier series of functions between -pi to pi
10.06.2022	Fourier series of function between 0 to pi	Fourier series of function between 0 to pi
11.06.2022	Fourier series of functions between -L to L	Fourier series of functions between -L to L
13.06.2022	complex form of Fourier series	complex form of Fourier series
14.06.2022	Sant Kabir Jayanti	
15.06.2022	application of Fourier theorem for analysis of complex waves	application of Fourier theorem for analysis of complex waves
16.06.2022	Solution of triangular and rectangular waves	Solution of triangular and rectangular waves
17.06.2022	half and full wave rectifier, Parseval identity	half and full wave rectifier, Parseval identity
18.06.2022	revision	revision
20.06.2022	need for quantum statistics : Bose Einstein energy distribution law	need for quantum statistics : Bose Einstein energy distribution law
21.06.2022	application of B.E statistics to planck radiation law	application of B.E statistics to planck radiation law
22.06.2022	B.E gas, degeneracy	B.E gas, degeneracy
23.06.2022	B.E. condensation	B.E. condensation
24.06.2022	Fermi dirac energy distribution law,F.D gas and degeneracy	Fermi dirac energy distribution law,F.D gas and degeneracy
25.06.2022	Fermi energy and fermi temperature	Fermi energy and fermi temperature
27.06.2022	Fermi dirac energy distribution law for electron gas in metals, comparison of three statistics	Fermi dirac energy distribution law for electron gas in metals, comparison of three statistics
28.06.2022	Revision	Revision
29.06.2022	Fourier transform and its properties	Fourier transform and its properties
30.06.2022	application of Fourier transform for evaluation of inte	application of Fourier transform for evaluation of inte
01.07.2022	application of Fourier transform for solution of ordinary differential equations	application of Fourier transform for solution of ordinary differential equations

	02.07.2022	application of Fourier transform for different functions	application of Fourier transform for different functions
	04.07.2022	matrix method in paraxial optics , effect of translation and refraction	matrix method in paraxial optics , effect of translation and refraction
	05.07.2022	derivation of thin lens and thick lens formula	derivation of thin lens and thick lens formula
	06.07.2022	unit plane and nodal plane	unit plane and nodal plane
	07.07.2022	Revision	Revision
	08.07.2022	Dulong and Petit, derivation of Dulong and petit law from classical physics	Dulong and Petit, derivation of Dulong and petit law from classical physics
	09.07.2022	specific heat at low temperature, Einstein theory of specific heat	specific heat at low temperature, Einstein theory of specific heat
	11.07.2022	debye model, comparison of all models	debye model, comparison of all models
	12.07.2022	chromatic, spherical, coma, astigmatism and distortion aberration and their remedies.	chromatic, spherical, coma, astigmatism and distortion aberration and their remedies.
	13.07.2022	optical fiber, critical angle of propagation, mode of propagation	optical fiber, critical angle of propagation, mode of propagation
	14.07.2022	acceptance angle, fractional refractive index change, numerical aperture	acceptance angle, fractional refractive index change, numerical aperture
	15.07.2022	types of optics fiber, normalized frequency, pulse dispersion, attenuation	types of optics fiber, normalized frequency, pulse dispersion, attenuation
	16.07.2022	application, fiber optics communication, advantage	application, fiber optics communication, advantage
	18.07.2022	Revision	Revision
	19.07.2022	Revision	Revision

Name of Teacher...Mrs. Suman Rani.....

Subject ...Physics.....

Week	Date	Class ...B.Sc. (Nm+CS).....	Class ...B.Sc(NM+CS).....
		Semester ...2nd.....	Semester ...2nd.....
	12.04.2022	Unit 1: Rotation of rigid body, M.O.I, Torque	
	13.04.2022	Angular momentum, K.E of rotation, Theorem of perpendicular and parallel axis	
	14.04.2022	Dr. B.R. Ambedkar Jayanti/Mahavir Jayanti	
	15.04.2022		Energy bands in solids, Intrinsic and extrinsic s/c
	16.04.2022		Carrier mobility and electrical resistivity of s/c
	18.04.2022	M.O.I of solid sphere and hollow sphere	
	19.04.2022	M.O.I of spherical shell	
	20.04.2022	M.O.I of Solid cylinder and hollow cylinder	
	21.04.2022		Hall effect, p-n junction diode and their characteristics
	22.04.2022		Zener and Avalanche break down, Zener diode
	23.04.2022		Zener diode as a voltage regulator
	25.04.2022	M.O.I of solid bar of rectangular cross section	
	26.04.2022	Fly wheel	
	27.04.2022	M.O.I of an irregular body	
	28.04.2022		LED, Photoconduction in s/c, Photodiodes, solar cell

	29.04.2022		p-n junction as a rectifier, half wave rectifier
	30.04.2022		Full wave rectifier
	02.05.2022	Acceleration of a body rolling down on an inclined plane	
	03.05.2022	Parshuram Jayanti/Id-ul-Fitr	
	04.05.2022	Test of unit 1	
	05.05.2022		Filters (series ,Shunt)
	06.05.2022		L section, pie and R.C Filter
	07.05.2022		Junction transistor, working of NPN and PNP transistor
	09.05.2022	Elasticity, stress and strain, Hooke's law	
	10.05.2022	Elastic Constant and their relations	
	11.05.2022	Poisson's ratio	
	12.05.2022		C-B, C-E, C-C configuration of transistor
	13.05.2022		Common base characteristics of transistor
	14.05.2022		Common emitter and common collector characteristics of transistor
	16.05.2022	Torsion of cylinder and twisting couple	
	17.05.2022	Determination of coefficient of modulus of rigidity for material of Maxwell needle	
	18.05.2022	Bending of beam	
	19.05.2022		Constants of transistor and their relations
	20.05.2022		Advantages and disadvantage of C-E configuration
	21.05.2022		D.C load line
	23.05.2022	Cantilever and centrally loaded beam	
	24.05.2022	Determination of Young's modulus for the material of beam	
	25.05.2022	Elastic Constant for the material of the wire by Searle's	
	26.05.2022		Transistor biasing
	27.05.2022		Various methods of transistor biasing and stabilization
	28.05.2022		revision of unit 2
	30.05.2022	Assumption of K.E theory of gases	
	31.05.2022	Pressure of an ideal gas	
	01.06.2022	Kinetic interpretation of Temperature	
	02.06.2022	Maharana Pratap Jayanti	
	03.06.2022		Amplifiers, Classification of amplifiers
	04.06.2022		Common base amplifiers
	06.06.2022	Ideal Gas equation	
	07.06.2022	Degree of freedom	
	08.06.2022	law of equipartition of energy	
	09.06.2022		Common emitter amplifiers
	10.06.2022		Coupling in amplifiers
	11.06.2022		Various methods of coupling
	13.06.2022	Application for specific heat of gases	
	14.06.2022	Sant Kabir Jayanti	
	15.06.2022	Real gases	
	16.06.2022		R-C coupled amplifiers

	17.06.2022		Concept of band width
	18.06.2022		Feed back in amplifiers
	20.06.2022	Vander Waal's equation	
	21.06.2022	Browning motion	
	22.06.2022	Revision of unit 3	
	23.06.2022		Advantages of negative feedback
	24.06.2022		Emitter follower
	25.06.2022		Distortion in Amplifiers
	27.06.2022	Test of unit 2	
	28.06.2022	Oscillator	
	29.06.2022	Principal of Oscillation	
	30.06.2022		Maxwell distribution of speed
	01.07.2022		Maxwell distribution of velocities
	02.07.2022		Test of unit 3
	04.07.2022	Classification of Oscillators	
	05.07.2022	Conditions for self sustained oscillation	
	06.07.2022	Barkhausen Criterion	
	07.07.2022		Experimental verification of Maxwell law of speed distribution
	08.07.2022		Most probable speed
	09.07.2022		Average and r.m.s speed
	11.07.2022	Tuned collector common emitter oscillator	
	12.07.2022	Hartley oscillator	
	13.07.2022	C.R.O	
	14.07.2022		Mean free path
	15.07.2022		Transport of energy and momentum
	16.07.2022		Diffusion of gases
	18.07.2022	Test of unit 4	
	19.07.2022	Revision	

Name of Teacher :- Ms. Mahak

Subject :- Physics

Week	Date	Class :- B. Sc. (NM+CS) -III	Class :-B.Sc.(NM+CS)- III
		Semester :-6th	Semester :-6th
	12.04.2022	Crystalline and glassy forms, liquid crystals, crystal structure	
	13.04.2022	periodicity, lattice and basis, crystal translational vectors and axes	
	14.04.2022	Dr. B.R. Ambedkar Jayanti/Mahavir Jayanti	
	15.04.2022	Unit cell and Primitive Cell, Winger Seitz primitive Cell,	
	16.04.2022	symmetry operations for a two dimensional crystal,	
	18.04.2022	Crystal planes and Miller indices	
	19.04.2022	numerical practice	
	20.04.2022	Interplaner spacing, Crystal structures of Zinc Sulphide	
	21.04.2022	Crystal structures of Sodium Chloride	
	22.04.2022	Crystal structure of Diamond.	
	23.04.2022		Introduction of early observations, emission and absorption spectra

	25.04.2022		atomic spectra, wave number,
	26.04.2022		Bohr atomic model, spectra of Hydrogen atom , explanation of spectral series in Hydrogen atom,
	27.04.2022		un-quantized states and continuous spectra, spectral series in absorption spectra
	28.04.2022		effect of nuclear motion on line spectra, variation in Rydberg constant due to finite mass,
	29.04.2022		short comings of Bohr's theory, Wilson sommerfeld quantization rule, de-Broglie interpretation of Bohr quantization law
	30.04.2022		Bohr's corresponding principle, Sommerfeld's extension of Bohr's model, Sommerfeld relativistic correction
	02.05.2022		Short comings of Bohr-Sommerfeld theory, Vector atom model
	03.05.2022	Parshuram Jayanti/Id-ul-Fitr	
	04.05.2022		space quantization, electron spin, coupling of orbital and spin angular momentum
	05.05.2022		spectroscopic terms and their notation, quantum numbers associated with vector atom model,
	06.05.2022		transition probability and selection rules
	07.05.2022	X-ray diffraction, Bragg's Law and experimental X-ray diffraction methods	
	09.05.2022	K-space and reciprocal lattice and its physical significance	
	10.05.2022	reciprocal lattice vectors	
	11.05.2022	numerical practice	
	12.05.2022	reciprocal lattice to a simple cubic lattice, b.c.c. and f.c.c.	
	13.05.2022	numerical practice and doubt session	
	14.05.2022		Orbital magnetic dipole moment, behavior of magnetic dipole in external magnetic filed
	16.05.2022		Larmors' precession and theorem
	17.05.2022		Penetrating and Non-penetrating orbits, Penetrating orbits on the classical model; Quantum defect,
	18.05.2022		spin orbit interaction energy of the single valance electron, spin orbit interaction for penetrating and non-penetrating orbits.
	19.05.2022		spin orbit interaction for penetrating and non- penetrating orbits.
	20.05.2022		quantum mechanical relativity correction, Hydrogen fine spectra
	21.05.2022		Main features of Alkali Spectra and their theoretical interpretation, term series and limits,

	23.05.2022		Rydeburg-Ritze combination principle, Absorption spectra of Alkali atoms.
	24.05.2022		observed doublet fine structure in the spectra of alkali metals and its Interpretation
	25.05.2022		Intensity rules for doublets, comparison of Alkali spectra and Hydrogen spectrum .
	26.05.2022		numerical practice
	27.05.2022		test of unit-1, 2
	28.05.2022	Historical introduction, Survey of superconductivity, Super conducting systems,	
	30.05.2022	High Tc Super conductors, Isotopic Effect, Critical Magnetic Field,	
	31.05.2022	Meissner Effect,	
	01.06.2022	London Theory and Pippards' equation	
	02.06.2022	Maharana Pratap Jayanti	
	03.06.2022	Classification of Superconductors (type I and Type II)	
	04.06.2022	BCS Theory of Superconductivity,	
	06.06.2022	Flux quantization, Josephson Effect (AC and DC)	
	07.06.2022	Practical Applications of superconductivity and their limitations,	
	08.06.2022	power application of superconductors	
	09.06.2022	doubt session	
	10.06.2022	revision	
	11.06.2022		Essential features of spectra of Alkaline-earth elements, Vector model for two valance electron atom application of spectra.
	13.06.2022		Coupling Schemes;LS or Russell – Saunders Coupling Scheme and JJ coupling scheme,
	14.06.2022	Sant Kabir Jayanti	
	15.06.2022	test of unit 2-3	
	16.06.2022		Interaction energy in L-S coupling (sp, pd configuration), Lande interval rule
	17.06.2022		Pauli principal and periodic classification of the elements. Interaction energy in JJ Coupling
	18.06.2022		, equivalent and non-equivalent electrons, Two valance electron system-spectral terms of non-equivalent and equivalent electrons,
	20.06.2022		comparison of spectral terms in L-S And J-J coupling. Hyperfine structure of spectral lines and its origin; isotope effect, nuclear spin.
	21.06.2022	Definition, Length scale, Importance of Nano-scale and technology, History of Nano technology, Benefits and challenges in molecular manufacturing.	

	22.06.2022	Molecular assembler concept, Understanding advanced capabilities.	
	23.06.2022	Vision and objective of Nano-technology, Nanotechnology in different field, Automobile, Electronics	
	24.06.2022	application in field of Nano-biotechnology, Materials, Medicine.	
	25.06.2022	revision, doubt session	
	27.06.2022		Zeeman Effect (normal and Anomalous), Experimental set-up for studying Zeeman effect
	28.06.2022		Explanation of normal Zeeman effect(classical and quantum mechanical)
	29.06.2022		Explanation of anomalous Zeeman effect(Lande g-factor)
	30.06.2022		Zeeman pattern of D1 and D2 lines of Na-atom
	01.07.2022		Paschen-Back effect of a single valence electron system
	02.07.2022		Weak field Stark effect of Hydrogen atom.
	04.07.2022		General Considerations, Electronic States of Diatomic Molecules
	05.07.2022		Rotational Spectra (Far IR and Microwave Region)
	06.07.2022		Vibrational Spectra (IR Region)
	07.07.2022		Rotator Model of Diatomic Molecule
	08.07.2022		Raman Effect
	09.07.2022		Electronic Spectra.
	11.07.2022		numerical practice
	12.07.2022		doubt session
	13.07.2022		revision
	14.07.2022		test of unit-3, 4
	15.07.2022	doubt session	
	16.07.2022	test of unit-1, 4	
	18.07.2022	revision of whole syllabus	
	19.07.2022	full syllabus test	