

Dayanand Mahila Mahavidyalaya, Kurukshetra

Lesson Plan (Odd Semester)

Session 2021-22 (08.10.2021 to 22.02.2022)

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

SubjectPhysics.....

Week	Date	ClassBSc- 2nd (NM)	ClassBSc- 2nd(CSc).....	Class
		Semester3rd...	Semester3rd...	Semester
	08.10.2021	Orientation Course		
	09.10.2021	Orientation Course		
	11.10.2021	Bridge courses	Bridge courses	
	12.10.2021	Bridge courses	Bridge courses	
	13.10.2021	Computer organization, binary representation	Computer organization, binary representation	
	14.10.2021	Algorithm development	Algorithm development	
	15.10.2021	Dussehra		
	16.10.2021	Flow chart, Fortran preliminaries	Flow chart, Fortran preliminaries	
	18.10.2021	built in function	built in function	
	19.10.2021	executable and non - executable statements	executable and non - executable statements	
	20.10.2021	Maharishi Balmiki Jayanti		
	21.10.2021	input and output statements	input and output statements	
	22.10.2021	format statement	format statement	
	23.10.2021	if, do statement	if, do statement	
	25.10.2021	Goto statement	Goto statement	
	26.10.2021	Dimension arrays	Dimension arrays	
	27.10.2021	Statement function	Statement function	
	28.10.2021	Function subprogram	Function subprogram	
	29.10.2021	Revision	Revision	
	30.10.2021	Revision	Revision	
	31.10.2021 to 07.11.2021	Diwali Vacations		
	08.11.2021	interference by division of wave front	interference by division of wave front	
	09.11.2021	Young's double slit experiment	Young's double slit experiment	
	10.11.2021	Coherence, condition of interference	Coherence, condition of interference	
	11.11.2021	Fresne's biprism	Fresne's biprism	
	12.11.2021	Application to determine of wavelength of sodium light	Application to determine of wavelength of sodium light	
	13.11.2021	Thickness of a mica sheet	Thickness of a mica sheet	
	15.11.2021	Lloy's mirror	Lloy's mirror	
	16.11.2021	Difference between bi-prism and Lloyd mirror fringes	Difference between bi-prism and Lloyd mirror fringes	
	17.11.2021	Phase change on reflection	Phase change on reflection	
	18.11.2021	Revision	Revision	

Week	Date	ClassBSc- 2nd (NM)	ClassBSc- 2nd(CSc).....	Class
		Semester3rd...	Semester3rd...	Semester
	19.11.2021	Guru Nanak Dev Jayanti		
	20.11.2021	Programming for print out of natural numbers	Programming for print out of natural numbers	
	22.11.2021	NAAC TEAM VISIT		
	23.11.2021	NAAC TEAM VISIT		
	24.11.2021	Range of the set of given numbers	Range of the set of given numbers	
	25.11.2021	Ascending and descending order	Ascending and descending order	
	26.11.2021	Mean and standard deviations	Mean and standard deviations	
	27.11.2021	Least square fitting of curve	Least square fitting of curve	
	29.11.2021	Roots of quardic equation	Roots of quardic equation	
	30.11.2021	Product of two matrices	Product of two matrices	
	01.12.2021	Numerical integration (Trapezoidal rule)	Numerical integration (Trapezoidal rule)	
	02.12.2021	Simpson 1/3 rule	Simpson 1/3 rule	
	03.12.2021	Revision	Revision	
	04.12.2021	interference by division of amplitude	interference by division of amplitude	
	06.12.2021	Thin film, plane parallel film	Thin film, plane parallel film	
	07.12.2021	Interference due to transmitted light	Interference due to transmitted light	
	08.12.2021	wedge shaped film	wedge shaped film	
	09.12.2021	Newto's rings	Newto's rings	
	10.12.2021	Interferometer	Interferometer	
	11.12.2021	Michelson interferometer	Michelson interferometer	
	13.12.2021	application of standardization of a meter	application of standardization of a meter	
	14.12.2021	Determination of wavelength	Determination of wavelength	
	15.12.2021	Revision	Revision	
	16.12.2021	Revision	Revision	
	17.12.2021	Thermodynamics system and Zeroth law of thermodynamics	Thermodynamics system and Zeroth law of thermodynamics	
	18.12.2021	First law of thermodynamics and its limitations	First law of thermodynamics and its limitations	
	20.12.2021	Reversible and irreversible process	Reversible and irreversible process	
	21.12.2021	Second law of thermodynamics and its significance	Second law of thermodynamics and its significance	
	22.12.2021	Carnot theorem	Carnot theorem	
	23.12.2021	Absolute scale of temperature, absolute zero	Absolute scale of temperature, absolute zero	
	24.12.2021	Joule free's expansion	Joule free's expansion	

Week	Date	ClassBSc- 2nd (NM)	ClassBSc- 2nd(CSc).....	Class
		Semester3rd...	Semester3rd...	Semester
	25.12.2021	Christmas		
	27.12.2021	Joule Thomson effect	Joule Thomson effect	
	28.12.2021	Joule Thomson (Porous plug) experiment, conclusion and explanation	Joule Thomson (Porous plug) experiment, conclusion and explanation	
	29.12.2021	Analytical treatment of Joule Thomson effect	Analytical treatment of Joule Thomson effect	
	30.12.2021	Entropy, calculations of entropy of reversible and irreversible process	Entropy, calculations of entropy of reversible and irreversible process	
	31.12.2021	T - S diagram, entropy of a perfect gas	T - S diagram, entropy of a perfect gas	
	01.01.2022	Nernst heat law(third law of thermodynamics)	Nernst heat law(third law of thermodynamics)	
	03.01.2022	Liquefaction of gases	Liquefaction of gases	
	04.01.2022	Solidification of He below 4K	Solidification of He below 4K	
	05.01.2022	Cooling by adiabatic demagnetization	Cooling by adiabatic demagnetization	
	06.01.2022	Revision	Revision	
	07.01.2022	Revision	Revision	
	08.01.2022	Huygens- Fresnel's theory	Huygens- Fresnel's theory	
	10.01.2022	Fresnel's assumption	Fresnel's assumption	
	11.01.2022	rectilinear propagation of light	rectilinear propagation of light	
	12.01.2022	Fresnel's half period zones	Fresnel's half period zones	
	13.01.2022	Zone plate	Zone plate	
	14.01.2022	Diffraction at a straight edge	Diffraction at a straight edge	
	15.01.2022	Diffraction at a circular aperture	Diffraction at a circular aperture	
	17.01.2022	Diffraction due to a narrow slit	Diffraction due to a narrow slit	
	18.01.2022	Diffraction due to a narrow wire	Diffraction due to a narrow wire	
	19.01.2022	Revision	Revision	
	20.01.2022	Revision	Revision	
	21.01.2022	Derivation of Clausius - Clapeyron and Clausius latent heat equation	Derivation of Clausius - Clapeyron and Clausius latent heat equation	
	22.01.2022	Significance of Clausius - Clapeyron equation	Significance of Clausius - Clapeyron equation	
	24.01.2022	Specific heat of saturated vapours	Specific heat of saturated vapours	
	25.01.2022	Phase diagram	Phase diagram	
	26.01.2022	Republic Day		
	27.01.2022	Triple point of a substance	Triple point of a substance	

Week	Date	ClassBSc- 2nd (NM)	ClassBSc- 2nd(CSc).....	Class
		Semester3rd...	Semester3rd...	Semester
	28.01.2022	Development of Maxwell thermodynamical relations	Development of Maxwell thermodynamical relations	
	29.01.2022	Thermodynamical functions : Internal energy	Thermodynamical functions : Internal energy	
	31.01.2022	Helmholtz function	Helmholtz function	
	01.02.2022	Enthalpy	Enthalpy	
	02.02.2022	Gibbs function and the relations between different thermodynamical functions	Gibbs function and the relations between different thermodynamical functions	
	03.02.2022	Derivation of Maxwell thermodynamical relations from thermodynamical functions	Derivation of Maxwell thermodynamical relations from thermodynamical functions	
	04.02.2022	Applications of Maxwell relations	Applications of Maxwell relations	
	05.02.2022	Basant Panchami		
	07.02.2022	Relations between two specific heats of a gas	Relations between two specific heats of a gas	
	08.02.2022	Derivation of Clausius - Clapeyron heat equation	Derivation of Clausius - Clapeyron heat equation	
	09.02.2022	Derivation of Stefan's law	Derivation of Stefan's law	
	10.02.2022	Deduction of theory of Joule Thomson effect	Deduction of theory of Joule Thomson effect	
	11.02.2022	Revision	Revision	
	12.02.2022	Fraunhofer diffraction : one slit diffraction	Fraunhofer diffraction : one slit diffraction	
	14.02.2022	Two slit diffraction	Two slit diffraction	
	15.02.2022	N- slit diffraction	N- slit diffraction	
	16.02.2022	Guru Ravidas Jayanti		
	17.02.2022	plane transmission grating spectrum	plane transmission grating spectrum	
	18.02.2022	Dispersive power of grating, limit of resolution	Dispersive power of grating, limit of resolution	
	19.02.2022	Rayleigh's criterion , Resolving power of telescope and a grating	Rayleigh's criterion , Resolving power of telescope and a grating	
	21.02.2022	Revision	Revision	
	22.02.2022	Revision	Revision	

Dayanand Mahila Mahavidyalaya, Kurukshetra

Lesson Plan (Odd Semester)

Session 2021-22 (08.10.2021 to 22.02.2022)

Name of Teacher ...Ms. Mahak

Subject ...Physics

Week	Date	Class ...B.Sc.(NM+CS)	Class .. B. Sc. (NM+CS)	Class
		Semester .. 5th , paper-1	Semester ...5th , paper-2	Semester
	08.10.2021	Orientation Course		
	09.10.2021	Orientation Course		
	11.10.2021	Overview, scale of quantum physics, boundary between classical and quantum phenomena, Photon		
	12.10.2021	Photoelectric effect, Compton effect, Frank Hertz experiment		
	13.10.2021	de-Broglie hypothesis, Davisson and Germer experiment		
	14.10.2021	G.P. Thomson experiment, Phase velocity, group velocity and their relation		
	15.10.2021	Dussehra		
	16.10.2021	Heisenberg's uncertainty principle. Time energy and angular momentum, position uncertainty		
	18.10.2021	Uncertainty principle from de Broglie wave. (Wave-particle duality). Gamma Ray Microscope		
	19.10.2021	Electron diffraction from a slit, numerical practice		
	20.10.2021	Maharishi Balmiki Jayanti		
	21.10.2021	Derivation of 1-D time-dependent Schrodinger wave equation (subject to force, free particle)		
	22.10.2021	Time-independent Schrodinger wave equation, eigen values, eigen functions		
	23.10.2021	wave functions and its significance. Orthogonality and Normalization of function, concept of observer and operator		
	25.10.2021	Expectation values of dynamical quantities, probability current density		
	26.10.2021	doubt session		
	27.10.2021		Nuclear composition, Nuclear properties; Nuclear size, spin, parity, statistics, magnetic dipole moment	

Week	Date	Class ...B.Sc.(NM+CS)	Class .. B. Sc. (NM+CS)	Class
		Semester .. 5th , paper-1	Semester ...5th , paper-2	Semester
	28.10.2021		quadruple moment, Determination of mass by Bain-Bridge	
	29.10.2021		Bain-Bridge and Jordan mass spectrograph	
	30.10.2021		Determination of charge by Mosley Law	
	31.10.2021 to 07.11.2021	Diwali Vacations		
	08.11.2021		Determination of size of nuclei by Rutherford Back Scattering. mass and binding energy	
	09.11.2021		systematic of nuclear binding energy, nuclear stability	
	10.11.2021		doubt session	
	11.11.2021		revision	
	12.11.2021		test of unit-1	
	13.11.2021	Free particle in one-dimensional box (introduction)		
	15.11.2021	Free particle in one-dimensional box (solution of Schrodinger wave equation, eigen functions, eigen values)		
	16.11.2021	Free particle in one-dimensional box (quantization of energy and momentum, nodes and anti nodes, zero point energy).		
	17.11.2021	One dimensional step potential $E > V_0$ (Reflection and Transmission coefficient)		
	18.11.2021	One dimensional step potential $E > V_0$ (Reflection and Transmission coefficient)		
	19.11.2021	Guru Nanak Dev Jayanti		
	20.11.2021	numerical practice		
	22.11.2021	NAAC TEAM VISIT		
	23.11.2021	NAAC TEAM VISIT		
	24.11.2021	One dimensional step potential $E < V_0$ (penetration depth calculation).		
	25.11.2021	One dimensional potential barrier, $E > V_0$ (Reflection and Transmission coefficient)		
	26.11.2021	One dimensional potential barrier, $E > V_0$ (Reflection and Transmission coefficient)		

Week	Date	Class ...B.Sc.(NM+CS)	Class .. B. Sc. (NM+CS)	Class
		Semester .. 5th , paper-1	Semester ...5th , paper-2	Semester
	27.11.2021	One-dimensional potential barrier, $E < V_0$ (penetration or tunneling coefficient)		
	29.11.2021	Solution of Schrodinger equation for harmonic oscillator		
	30.11.2021	quantization of energy, Zero-point energy		
	01.12.2021	wave equation for ground state and excited states		
	02.12.2021	revision		
	03.12.2021	doubts session		
	04.12.2021	test-2		
	06.12.2021		Alpha-disintegration and its theory	
	07.12.2021		Energetics of alpha-decay, Origin of continuous beta spectrum	
	08.12.2021		types of beta-decay and energetics of beta-decay	
	09.12.2021		Nature of gamma rays	
	10.12.2021		Energetics of gamma rays.	
	11.12.2021		revision, doubt session	
	13.12.2021		students presentation on nuclear physics	
	14.12.2021		students presentation on nuclear physics	
	15.12.2021		students presentation on nuclear physics	
	16.12.2021		Interaction of heavy charged particles (Alpha particles); Energy loss of heavy charged particle	
	17.12.2021		Range and straggling of alpha particles.Geiger-Nuttal law.	
	18.12.2021		Interaction of light charged particle (Beta-particle), Energy loss of beta-particles (ionization), Range of electrons,	
	20.12.2021		absorption of beta-particles. Interaction of Gamma Ray; Passage of Gamma radiations through matter	
	21.12.2021		electron-positron annihilation. Absorption of Gamma rays	
	22.12.2021		application of gamma ray	
	23.12.2021		doubt session	
	24.12.2021		test(sessional)	
	25.12.2021	Christmas		

Week	Date	Class ...B.Sc.(NM+CS)	Class .. B. Sc. (NM+CS)	Class
		Semester .. 5th , paper-1	Semester ...5th , paper-2	Semester
	27.12.2021	Absorption and emission of radiation, Main features of a laser: Directionality, high intensity, high degree of coherence,		
	28.12.2021	spatial and temporal coherence, Einstein's coefficients and possibility of amplification,		
	29.12.2021	momentum transfer, life time of a level, kinetics of optical absorption		
	30.12.2021	.population inversion: A necessary condition for light amplification, resonance cavity,		
	31.12.2021	laser pumping, Threshold condition for laser emission, line broadening mechanism		
	01.01.2022	homogeneous and inhomogeneous line broadening		
	03.01.2022	revision and doubt session		
	04.01.2022		Linear accelerator	
	05.01.2022		Tendem accelerator	
	06.01.2022		Cyclotron	
	07.01.2022		Betatron accelerators	
	08.01.2022		Gas filled counters	
	10.01.2022		Ionization chamber	
	11.01.2022		proportional counter	
	12.01.2022		G.M. Counter	
	13.01.2022		Scintillation counter	
	14.01.2022		semiconductor detector	
	15.01.2022		revision	
	17.01.2022		test -Unit-III	
	18.01.2022	He-Ne laser		
	19.01.2022	ruby laser		
	20.01.2022	Optical properties of semiconductor		
	21.01.2022	semiconductor laser		
	22.01.2022	Applications of lasers in the field of medicine and industry.		
	24.01.2022	revision of full syllabus		
	25.01.2022	doubts session		
	26.01.2022	Republic Day		
	27.01.2022	numerical practice		
	28.01.2022	revision		
	29.01.2022	doubt session		
	31.01.2022	full length test of paper-1		
	01.02.2022		Nuclear reactions	

Week	Date	Class ...B.Sc.(NM+CS)	Class .. B. Sc. (NM+CS)	Class
		Semester .. 5th , paper-1	Semester ...5th , paper-2	Semester
	02.02.2022		Elastic scattering, Inelastic scattering	
	03.02.2022		Nuclear disintegration, Photonuclear reaction	
	04.02.2022		Radiative capture, Direct reaction	
	05.02.2022	Basant Panchami		
	07.02.2022		Heavy ion reactions and spallation Reactions	
	08.02.2022		Conservation laws, Q-value and reaction threshold	
	09.02.2022		numerical practice	
	10.02.2022		Nuclear Reactors	
	11.02.2022		General aspects of Reactor Design	
	12.02.2022		Nuclear fission and fusion reactors	
	14.02.2022		numerical practice	
	15.02.2022		doubt session	
	16.02.2022	Guru Ravidas Jayanti		
	17.02.2022		full length test of paper-2	
	18.02.2022		revision	
	19.02.2022	revision		
	21.02.2022	doubt session	doubt session	
	22.02.2022	full length test of paper-1&2	full length test of paper-1&2	

Dayanand Mahila Mahavidyalaya, Kurukshetra

Lesson Plan (Odd Semester)

Session 2021-22 (08.10.2021 to 22.02.2022)

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

SubjectPhysics

Week	Date	Class ...B.Sc. 1st.....	Class ...B.Sc. 1st	Class
		Semester ...1st.....	Semester ..1st	Semester
	08.10.2021	Orientation Course		
	09.10.2021	Orientation Course		
	11.10.2021	Bridge course		
	12.10.2021	Bridge course		
	13.10.2021	Mechanics of single and system of particles		
	14.10.2021		Gradient of a scalar and its physical significance	
	15.10.2021	Dussehra		
	16.10.2021		Line ,Surface and Volume integrals and their physical significance	
	18.10.2021	conservation law of linear momentum and angular momentum		
	19.10.2021	Mechanical energy for a particle and a system of particles		
	20.10.2021	Maharishi Balmiki Jayanti		
	21.10.2021		Flux of vector field,divergence	
	22.10.2021		Curl of a vector and their physical significance	
	23.10.2021		Gauss's divergence theorem and Stokes's theorem	
	25.10.2021	Centre of mass and equation of motion		
	26.10.2021	Constrained motion		
	27.10.2021	Problems of 1st unit		
	28.10.2021		Derivation of electric field E from potential as gradient	
	29.10.2021		Derivation of Laplace and Poisson equation	
	30.10.2021		Gauss's Law,Mechanical force of charged surface and energy per unit volume	
	31.10.2021 to 07.11.2021	Diwali Vacations		
	08.11.2021	Degree of freedom and generalized co- ordinates		

Week	Date	Class ...B.Sc. 1st.....	Class ...B.Sc. 1st	Class
		Semester ...1st.....	Semester ..1st	Semester
	09.11.2021	Transformation equations, Generalized Displacement, velocity, Acceleration		
	10.11.2021	Momentum, Force and Potential		
	11.11.2021		Problems of 1st unit	
	12.11.2021		Magnetic induction, Magnetic flux	
	13.11.2021		Solenoidal nature of vector field of induction, Properties of B	
	15.11.2021	Hamilton variational principle, Lagrange equation of motion		
	16.11.2021	Linear Harmonic Oscillator, Simple Pendulum		
	17.11.2021	Atwood machine and Problem of unit 2		
	18.11.2021		Electronic theory of dia and paramagnetism	
	19.11.2021	Guru Nanak Dev Jayanti		
	20.11.2021		Domain theory of ferromagnetism	
	22.11.2021	NAAC TEAM VISIT		
	23.11.2021	NAAC TEAM VISIT		
	24.11.2021	Problems of 2nd unit		
	25.11.2021		Cycle of magnetization- Hysteresis loop	
	26.11.2021		Problems of unit 2	
	27.11.2021		Maxwell equation and their derivation	
	29.11.2021	Frame of reference		
	30.11.2021	Limitations of Newton's law of motion		
	01.12.2021	Inertial frame of reference, Galilean transformation		
	02.12.2021		Displacement current	
	03.12.2021		Vector and Scalar potentials	
	04.12.2021		Boundary conditions at interface between two different media	
	06.12.2021	Frame of reference with linear acceleration		
	07.12.2021	Classical relativity- Galilean invariance		
	08.12.2021	Transformation equations for a frame of reference		

Week	Date	Class ...B.Sc. 1st.....	Class ...B.Sc. 1st	Class
		Semester ...1st.....	Semester ..1st	Semester
	09.12.2021		Boundary Conditions	
	10.12.2021		Propagation of e-m waves	
	11.12.2021		Poynting vector	
	13.12.2021	Inclined Plane		
	14.12.2021	Rotating frame of Reference		
	15.12.2021	Non- Inertial frames		
	16.12.2021		Poynting theorems	
	17.12.2021		Problems of unit 3	
	18.12.2021		Test of unit 1	
	20.12.2021	Accelerated frame of reference		
	21.12.2021	Rotating frame of reference		
	22.12.2021	Effect of centrifugal force		
	23.12.2021		Discussion of unit 1 Test	
	24.12.2021		Test of unit 2	
	25.12.2021	Christmas		
	27.12.2021	Effect of coriolis force due to earth rotation		
	28.12.2021	Fundamentals frame of reference		
	29.12.2021	Michelson Morley experiment		
	30.12.2021		A.C. circuit analysis using complex variable	
	31.12.2021		discussion of unit 2 test	
	01.01.2022		CR circuits	
	03.01.2022	Revision of Michelson and Morley experiment		
	04.01.2022	Concept of Einstein relativity		
	05.01.2022	Test of unit 1		
	06.01.2022		LR circuits	
	07.01.2022		LC capacitance	
	08.01.2022		Sessional Test	
	10.01.2022	Discussion of unit 1st test		
	11.01.2022	Special theory of relativity		
	12.01.2022	Lorentz co- ordinates		
	13.01.2022		Discussion of Test	
	14.01.2022		LCR circuit	
	15.01.2022		Test of unit 3	
	17.01.2022	Physical significance of Lorentz invariance		
	18.01.2022	Length Contraction		
	19.01.2022	Time Dilation		
	20.01.2022		Series Resonant circuit	
	21.01.2022		Parallel Resonant circuit	
	22.01.2022		Discussion of unit 3 test	
	24.01.2022	Twin Paradox		
	25.01.2022	Velocity addition Theorem		
	26.01.2022	Republic Day		

Week	Date	Class ...B.Sc. 1st.....	Class ...B.Sc. 1st	Class
		Semester ...1st.....	Semester ..1st	Semester
	27.01.2022		Quality Factor	
	28.01.2022		Sharpeness of resonance	
	29.01.2022		Problems of unit 4	
	31.01.2022	Variation of mass with velocity		
	01.02.2022	Mass energy equivalence		
	02.02.2022	Transformation of relativistic momentum and energy		
	03.02.2022		Test of unit 4	
	04.02.2022		Discussion bof unit 4 test	
	05.02.2022	Basant Panchami		
	07.02.2022	Relation between relativistic momentum and energy		
	08.02.2022	Relation for Mass ,velocity and momentum		
	09.02.2022	Energy of zero rest mass		
	10.02.2022		Discussion of Assignment	
	11.02.2022		Revision of unit 1	
	12.02.2022		Revision of unit 2	
	14.02.2022	Problems of unit 4		
	15.02.2022	Test of unit 4		
	16.02.2022	Guru Ravidas Jayanti		
	17.02.2022		Unit 1 and 2 Combined test	
	18.02.2022		Revision of unit 3	
	19.02.2022		Revision of unit 4	
	21.02.2022	Revision of unit 1		
	22.02.2022	Revision of unit 2		