

KVA DAV College for Women, Karnal

Lesson Plan for the Even Semester
(February to May, 2023)

Name of the Teacher – Ms. Vandana
Class- B.Sc.-Second Second Year (4th Semester)
Subject- Statistical Physics
Paper- PH- 401

February,2023 1 st Week 1Feb-4 Feb	Unit –I: Statistical Physics I Microscopic and Macroscopic systems, events-mutually exclusive, dependent and independent. Probability, statistical probability, A- priori Probability and relation between them, probability theorems, some probability considerations
5Feb, 2023	Guru RavidasJayanti, Sunday
2 nd Week 6Feb -11Feb	Combinations possessing maximum probability, combination possessing minimum probability, Tossing of 2,3 and any number of Coins, Permutations and combinations, distributions of N (for N= 2,3,4) distinguishable and indistinguishable particles in two boxes of equal size
12Feb, 2023	Sunday
3 rd Week 13Feb -17 Feb	Micro and Macro states, Thermodynamical probability, Constraints and Accessible states, Statistical fluctuations, general distribution of distinguishable particles in compartments of different sizes
18 Feb, 2023 19 Feb,2023	MahaShivaratri Sunday
4 th Week 20Feb -25 Feb	Condition of equilibrium between two systems in thermal contact-- β parameter, Entropy and Probability (Boltzmann's relation). Class Test
26 Feb, 2023	Sunday
5 th Week 27 Feb -28 Feb	Unit –II: Statistical Physics II Postulates of statistical physics, Phase space, Division of Phase space into cells, three kinds of statistics, basic approach in three statistics.

KVA DAV College for Women, Karnal

**Lesson Plan for the Even Semester
(February to May, 2023)**

Name of the Teacher – Ms. Vandana
Class- B.Sc.-Second Second Year (4th Semester)
Subject- Statistical Physics
Paper- PH- 401

March, 2023 1stWeek 1March -4 March	M. B. statistics applied to an ideal gas in equilibrium, energy distribution law (including evaluation of σ and β) , speed distribution law & velocity distribution law
2nd Week 5 March -12 March, 2023	Holi Break
3rdWeek 13 March-18 March	Expression for average speed, r.m.s. speed, average velocity, r. m. s. velocity, most probable energy & mean energy for Maxwell distribution. Revision
19 March,2023	Sunday
4thWeek 20March-25 March	Unit-III: Quantum Statistics Need for Quantum Statistics: Bose-Einstein energy distribution law, Application of B.E. statistics to Planck's radiation law,
23 March, 2023 26 March, 2023	ShaheediDiwas/Martyrdom Day of Bhagat Singh, Rajguru&Sukhdev Sunday
30 March, 2023	Ram Navmi
5th Week 27 March- 31 March	B.E. gas degeneracy and B.E. Condensation, Fermi Dirac energy distribution law, F.D. gas and Degeneracy

KVA DAV College for Women, Karnal

**Lesson Plan for the Even Semester
(February to May 2023)**

Name of the Teacher – Ms. Vandana
Class- B.Sc.-Second Second Year (4th Semester)
Subject- Statistical Physics
Paper- PH- 401

April, 2023 1st Week 1 April, 2023	Fermi energy and Fermi temperature, Fermi Dirac energy distribution law, Fermi Dirac gas and degeneracy, Fermi energy and Fermi temperature, Fermi Dirac energy distribution law for electron gas in metals, Zero point energy
2 April, 2023	Sunday
2nd Week 3 April -8 April	Zero point pressure and average speed (at 0 K) of electron gas, Specific heat anomaly of metals and its solution. M.B. distribution as a limiting case of B.E. and F.D. distributions, Comparison of three statistics.
4 April, 2023 9 April, 2023	Mahavir Jayanti Sunday
3rd Week 10April - 15April	Unit-IV: Theory of Specific Heat of Solids Dulong and Petit law. Derivation of Dulong and Petit law from classical physics. Specific heat at low temperature
14 April, 2023 16 April, 2023	Vaisakhi/Dr. B.R. Ambedkar Jayanti Sunday
4thWeek 17 April -21 April	Sessional Exams
22 April, 2023 23 April, 2023	Id-Ul-Fitr/Parshuram Jayanti Sunday
5thWeek 24 April -29 April	Einstein theory of specific heat Class Test
30 April, 2023	Sunday

KVA DAV College for Women, Karnal

**Lesson Plan for the Even Semester
(February to May, 2023)**

Name of the Teacher – Ms. Vandana
Class- B.Sc.-Second Second Year (4th Semester)
Subject- Statistical Physics
Paper- PH- 401

May, 2023 1st Week 1 May -6 May	Criticism of Einstein theory, Debye model of specific heat of solids, success and shortcomings of Debye theory, comparison of Einstein and Debye theories.
7 May, 2023	Sunday
2nd Week 8 May -13 May	Revision and Class Test
14 May, 2023	Sunday
17 May,2023 Onwards	University Examinations

KVA DAV College for Women, Karnal

**Lesson Plan for the Even Semester
(February to May, 2023)**

Name of the Teacher – Ms. Vandana

Class- B.Sc. - Third Year (6th Semester)

Subject- Atomic and Molecular Spectroscopy

Paper- PH- 602

February,2023 1st Week 1Feb-4 Feb	Unit – I: Historical background of atomic spectroscopy Introduction of early observations, emission and absorption spectra, atomic spectra, wave number
5Feb, 2023	Guru Ravidas Jayanti, Sunday
2nd Week 6Feb -11Feb	spectrum of Hydrogen atom in Balmer series, Bohr atomic model(Bohr's postulates) spectra of Hydrogen atom , explanation of spectral series in Hydrogen atom
12Feb, 2023	Sunday
3rd Week 13Feb -17 Feb	un-quantized states and continuous spectra, spectral series in absorption spectra, effect of nuclear motion on line spectra (correction of finite nuclear mass), variation in Rydberg constant due to finite mass
18 Feb, 2023 19 Feb,2023	MahaShivaratri Sunday
4th Week 20Feb -25 Feb	shortcomings of Bohr's theory, Wilson sommerfeld quantization rule, de-Broglie interpretation of Bohr quantization law, Bohr's corresponding principle, Sommerfeld's extension of Bohr's model
26 Feb, 2023	Sunday
5th Week 27 Feb -28 Feb	Sommerfeld relativistic correction, Shortcomings of Bohr-Sommerfeld theory Vector atom model; space quantization, electron spin, coupling of orbital and spin angular momentum

KVA DAV College for Women, Karnal

**Lesson Plan for the Even Semester
(February to May, 2023)**

Name of the Teacher – Ms. Vandana

Class- B.Sc. - Third Year (6th Semester)

Subject- Atomic and Molecular Spectroscopy

Paper- PH- 602

March, 2023 1stWeek 1March -4 March	Spectroscopic terms and their notation, quantum numbers associated with vector atom model, transition probability and selection rules. Class Test
2nd Week 5 March -12 March, 2023	Holi Break
3rdWeek 13 March-18 March	Unit –II: Vector Atom Model (single valance electron) Orbital magnetic dipole moment (Bohr megnaton), behavior of magnetic dipole in external magnetic field; Larmors' precession and theorem.
19 March,2023	Sunday
4thWeek 20March-25 March	Penetrating and Non-penetrating orbits, Penetrating orbits on the classical model; Quantum defect Class Test
23 March, 2023	ShaheediDiwas/Martyrdom Day of Bhagat
26 March, 2023	Singh, Rajguru&Sukhdev
30 March, 2023	Sunday
30 March, 2023	Ram Navmi
5th Week 27 March- 31 March	Spin orbit interaction energy of the single valance electron, spin orbit interaction for penetrating and non-penetrating orbits. quantum mechanical relativity correction, Hydrogen fine spectra, Main features of Alkali Spectra and their theoretical interpretation

KVA DAV College for Women, Karnal

Lesson Plan for the Even Semester (February to May 2023)

Name of the Teacher – Ms. Vandana

Class- B.Sc. - Third Year (6th Semester)

Subject- Atomic and Molecular Spectroscopy

Paper- PH- 602

April, 2023 1 st Week 1 April, 2023	Term series and limits, Rydeburg-Ritze combination principle. Absorption spectra of Alkali atoms. observed doublet fine structure in the spectra of alkali metals and its Interpretation, Intensity rules for doublets, comparison of Alkali spectra and Hydrogen spectrum
2 April, 2023	Sunday
2 nd Week 3 April - 8 April	UNIT-III: Vector Atom model (two valance electrons) Essential features of spectra of Alkaline-earth elements, Vector model for two valance electron atom: application of spectra. Coupling Schemes;LS or Russell – Saunders Coupling Scheme
4 April, 2023 9 April, 2023	MahavirJayanti Sunday
3 rd Week 10April - 15April	JJ coupling scheme, Interaction energy in L-S coupling (sp, pd configuration), Lande interval rule, Pauli principal
14 April, 2023 16 April, 2023	Vaisakhi/Dr. B.R. AmbedkarJayanti Sunday
4 th Week 17 April -21 April	Sessional Exams
22 April, 2023 23 April, 2023	Id-Ul-Fitr/ParshuramJayanti Sunday
5 th Week 24 April -29 April	Periodic classification of the elements. Interaction energy in JJ Coupling (sp, pd configuration), equivalent and non-equivalent electrons, Two valance electron system-spectral terms of non-equivalent and equivalent electrons. Comparison of spectral terms in L-S And J-J coupling. Hyperfine structure of spectral lines and its origin; isotope effect, nuclear spin.
30 April, 2023	Sunday

KVA DAV College for Women, Karnal

**Lesson Plan for the Even Semester
(February to May, 2023)**

Name of the Teacher – Ms. Vandana

Class- B.Sc. - Third Year (6th Semester)

Subject- Atomic and Molecular Spectroscopy

Paper- PH- 602

May, 2023 1st Week 1 May -6 May	Unit –IV: Atom in External Field Zeeman Effect (normal and Anomalous), Experimental set-up for studying Zeeman effect, Explanation of normal Zeeman effect(classical and quantum mechanical) Explanation of anomalous Zeeman effect(Lande g-factor), Zeeman pattern of D1 and D2 lines of Na atom, Paschen-Back effect of a single valence electron system. Weak field Stark effect of Hydrogen atom.
7 May, 2023	Sunday
2nd Week 8 May -13 May	Molecular Physics: General Considerations, Electronic States of Diatomic Molecules, Rotational Spectra (Far IR and Microwave Region), Vibrational Spectra (IR Region), Rotator Model of Diatomic Molecule, Raman Effect, Electronic Spectra. Revision
14 May, 2023	Sunday
17 May,2023 Onwards	University Examinations

KVA DAV College for Women, Karnal

Lesson Plan for the Even Semester
(February to May, 2023)

Name of the Teacher – Ms. Shruti Jain

Class- B.Sc.-First Year (2nd Semester)

Subject- Properties of Matter and Kinetic Theory of Gases

Paper- PH-201

February,2023 1 st Week 1Feb-4 Feb	Unit I: Moment of inertia Rotation of rigid body, Moment of inertial, Torque, angular momentum, Kinetic Energy of rotation.
5Feb, 2023	Guru Ravidas Jayanti, Sunday
2 nd Week 6Feb -11Feb	Theorem of perpendicular and parallel axes (with proof),Moment of inertia of solid sphere ,hollow sphere, spherical shell
12Feb, 2023	Sunday
3 rd Week 13Feb -17 Feb	Moment of Inertia of solid cylinder, hollow cylinder and solid bar of rectangular cross–section, Fly wheel
18 Feb, 2023 19 Feb,2023	MahaShivaratri Sunday
4 th Week 20Feb -25 Feb	Moment of inertia of an irregular body, Acceleration of a body rolling down on an inclined plane.
26 Feb, 2023	Sunday
5 th Week 27 Feb -28 Feb	Unit 2: Elasticity, Stress and Strain, Hook’s law, Elastic constant and their relations.

KVA DAV College for Women, Karnal

**Lesson Plan for the Even Semester
(February to May, 2023)**

Name of the Teacher – Ms. Shruti Jain

Class- B.Sc.-First Year (2nd Semester)

Subject- Properties of Matter and Kinetic Theory of Gases

Paper- PH-201

March, 2023 1stWeek 1March -4 March	Poisson's ratio, Torsion of cylinder, twisting couple, Determination of coefficient of modulus of rigidity for the material of wire by Maxwell's needle Class Test
2nd Week 5 March -12 March, 2023	Holi Break
3rdWeek 13 March-18 March	Bending of beam (Bending moment and its magnitude), Cantilever and Centrally loaded beam,
19 March,2023	Sunday
4thWeek 20March-25 March	Determination of Young's modulus for the material of the beam and Elastic constants for the material of the wire by Searle's method.
23 March, 2023	ShaheediDiwas/Martyrdom Day of Bhagat Singh, Rajguru&Sukhdev
26 March, 2023	Sunday
30 March, 2023	Ram Navmi
5th Week 27 March- 31 March	Unit 3: Kinetic theory of gases-I Assumption of Kinetic theory of gases, pressure of an ideal gas (with derivation)

KVA DAV College for Women, Karnal

**Lesson Plan for the Even Semester
(February to May 2023)**

Name of the Teacher – Ms. Shruti Jain

Class- B.Sc.-First Year (2nd Semester)

Subject- Properties of Matter and Kinetic Theory of Gases

Paper- PH-201

April, 2023 1st Week 1 April, 2023	Kinetic interpretation of Temperature, Ideal Gas equation, Degree of freedom Law of equipartition of energy
2 April, 2023	Sunday
2nd Week 3 April -8 April	application for specific heat of gases, Real gases ,Vander wall's equation, Brownian motion(Qualitative)
4 April, 2023 9 April, 2023	MahavirJayanti Sunday
3rd Week 10April - 15April	Unit 4: Kinetic theory of gases-II Maxwell's distribution of speed and velocities (derivation required)
14 April, 2023 16 April, 2023	Vaisakhi/Dr. B.R. AmbedkarJayanti Sunday
4thWeek 17 April -21 April	Sessional Exams
22 April, 2023 23 April, 2023	Id-UI-Fitr/ParshuramJayanti Sunday
5thWeek 24 April -29 April	Experimental verification of Maxwell's law of speed distribution: most probable speed
30 April, 2023	Sunday

KVA DAV College for Women, Karnal

**Lesson Plan for the Even Semester
(February to May, 2023)**

Name of the Teacher – Ms. Shruti Jain

Class- B.Sc.-First Year (2nd Semester)

Subject- Properties of Matter and Kinetic Theory of Gases

Paper- PH-201

May, 2023 1st Week 1 May -6 May	Average and r.m.s. speed, Mean free path, Transport of energy and momentum, Diffusion of gases.
7 May, 2023	Sunday
2nd Week 8 May -13 May	Revision and Class Test
14 May, 2023	Sunday
17 May,2023 Onwards	University Examinations

KVA DAV College for Women, Karnal

**Lesson Plan for the Even Semester
(February to May, 2023)**

Name of the Teacher – Ms. Shruti Jain
Class- B.Sc.-Third Year (6th Semester)
Subject- Solid State and Nano Physics
Paper- PH-601

February,2023 1st Week 1Feb-4 Feb	Unit I: Crystal Structure I Crystalline and glassy forms, liquid crystals, crystal structure, periodicity, lattice and basis, crystal translational vectors and axes.
5Feb, 2023	Guru RavidasJayanti, Sunday
2ndWeek 6Feb -11Feb	Unit cell and Primitive Cell, Winger Seitz primitive Cell, symmetry operations for a two dimensional crystal
12Feb, 2023	Sunday
3rd Week 13Feb -17 Feb	Bravais lattices in two and three dimensions. Crystal planes and Miller indices, Interplaner spacing,
18 Feb, 2023 19 Feb,2023	MahaShivaratri Sunday
4th Week 20Feb -25 Feb	Crystal structures of Zinc Sulphide, Sodium Chloride and Diamond.
26 Feb, 2023	Sunday
5th Week 27 Feb -28 Feb	Unit II: Crystal Structure II X-ray diffraction, Bragg's Law and experimental X-ray diffraction methods.

KVA DAV College for Women, Karnal

**Lesson Plan for the Even Semester
(February to May, 2023)**

Name of the Teacher – Ms. Shruti Jain
Class- B.Sc.-Third Year (6th Semester)
Subject- Solid State and Nano Physics
Paper- PH-601

March, 2023 1stWeek 1March -4 March	K-space and reciprocal lattice and its physical significance Reciprocal lattice vectors,
2nd Week 5 March -12 March, 2023	Holi Break
3rdWeek 13 March-18 March	Reciprocal lattice to a simple cubic lattice, B.C.C and F.C.C. Unit III: Super conductivity Historical introduction, Survey of superconductivity,
19 March,2023	Sunday
4thWeek 20March-25 March	Super conducting systems, High Tc Super conductors, Isotopic Effect, Critical Magnetic Field
23 March, 2023	ShaheediDiwas/Martyrdom Day of Bhagat
26 March, 2023	Singh, Rajguru&Sukhdev
30 March, 2023	Sunday
5th Week 27 March- 31 March	Ram Navmi Meissner Effect, London Theory and Pippards' equation, Classification of Superconductors (type I and Type II), BCS Theory of Superconductivity

KVA DAV College for Women, Karnal

**Lesson Plan for the Even Semester
(February to May 2023)**

Name of the Teacher – Ms. Shruti Jain
Class- B.Sc.-Third Year (6th Semester)
Subject- Solid State and Nano Physics
Paper- PH-601

April, 2023 1st Week 1 April, 2023	Flux quantization, Josephson Effect (AC and DC), Practical Applications of superconductivity and their limitations,
2 April, 2023	Sunday
2nd Week 3 April -8 April	Power application of superconductors. Class Test
4 April, 2023 9 April, 2023	MahavirJayanti Sunday
3rd Week 10April - 15April	Unit IV: Introduction to Nano Physics Definition, Length scale, Importance of Nano-scale and technology, History of Nantechnology
14 April, 2023 16 April, 2023	Vaisakhi/Dr. B.R. AmbedkarJayanti Sunday
4thWeek 17 April -21 April	Sessional Exams
22 April, 2023 23 April, 2023	Id-UI-Fitr/ParshuramJayanti Sunday
5thWeek 24 April -29 April	Benefits and challenges in molecular manufacturing. Molecular assembler concept,
30 April, 2023	Sunday

KVA DAV College for Women, Karnal

**Lesson Plan for the Even Semester
(February to May, 2023)**

Name of the Teacher – Ms. Shruti Jain
Class- B.Sc.-Third Year (6th Semester)
Subject- Solid State and Nano Physics
Paper- PH-601

May, 2023 1st Week 1 May -6 May	Understanding advanced capabilities. Vision and objective of Nano-technology, Nanotechnology in different field, Automobile, Electronics, Nano-biotechnology, Materials, Medicine.
7 May, 2023	Sunday
2nd Week 8 May -13 May	Revision And Class Test
14 May, 2023	Sunday
17 May,2023 Onwards	University Examinations

KVA DAV College for Women, Karnal

**Lesson Plan for the Even Semester
(February to May, 2023)**

Name of the Teacher – Ms.Priya Kamboj

Class- B.Sc-First year (IInd SEM)

Subject- Semiconductor Devices

Paper- PH-202

February,2023 1st Week 1Feb-4 Feb	Unit I: Semiconductors Energy bands in solids, Intrinsic and extrinsic semiconductors. Carrier mobility and electrical resistivity of semiconductors.
5Feb, 2023	Guru RavidasJayanti, Sunday
2ndWeek 6Feb -11Feb	P-n junction diode and their characteristics, Zener and Avalanche breakdown, Zener diode, Zener diode as a voltage regulator. Light emitting diodes (LED), Photoconduction in semiconductors, Photodiode.
12Feb, 2023	Sunday
3rd Week 13Feb -17 Feb	Solar Cell, p-n junction as a rectifier, half wave and full wave rectifiers (with derivation)
18 Feb, 2023 19 Feb,2023	MahaShivaratri Sunday
4th Week 20Feb -25 Feb	Unit 2: Transistors Junction transistors, Working of NPN and PNP transistors,
26 Feb, 2023	Sunday
5th Week 27 Feb -28 Feb	Three configurations of transistor (C-B, C-E, C-C modes),Common base, common emitter and common collector characteristics of transistor

KVA DAV College for Women, Karnal

**Lesson Plan for the Even Semester
(February to May, 2023)**

Name of the Teacher –Ms.Priya Kamboj

Class-B.Sc-First Year(IIst sem)

Subject- Semiconductor devices

Paper- PH-202

March, 2023 1stWeek 1March -4 March	Constants of a transistor and their relation, Advantages and disadvantages of C-E configuration
2nd Week 5 March -12 March, 2023	Holi Break
3rdWeek 13 March-18 March	D.C. load line .Transistor biasing; various methods of transistor biasing and stabilization
19 March,2023	Sunday
4thWeek 20March-25 March	Unit 3: Transistor Amplifiers Amplifiers, Classification of amplifiers
23 March, 2023	ShaheediDiwas/Martyrdom Day of Bhagat
26 March, 2023	Singh, Rajguru&Sukhdev
30 March, 2023	Sunday
30 March, 2023	Ram Navmi
5th Week 27 March- 31 March	common base and common emitter amplifiers, coupling of amplifiers

KVA DAV College for Women, Karnal

Lesson Plan for the Even Semester (February to May 2023)

Name of the Teacher – Ms.Priya Kamboj

Class- B.sc-first Year (IInd SEM)

Subject- Semiconductors devices.

Paper- PH-202

April, 2023 1 st Week 1 April, 2023	various methods of coupling, Resistance- Capacitance (RC) coupled amplifier (two stage, concept of band width, no derivation)
2 April, 2023	Sunday
2 nd Week 3 April -8 April	Feedback in amplifiers, advantages of negative feedback, emitter follower, distortion in amplifiers. Class Test
4 April, 2023 9 April, 2023	MahavirJayanti Sunday
3 rd Week 10April - 15April	Unit 4: Oscillators Oscillators, Principle of oscillation, classification of oscillators, Condition for self sustained oscillation:
14 April, 2023 16 April, 2023	Vaisakhi/Dr. B.R. AmbedkarJayanti Sunday
4 th Week 17 April -21 April	Sessional Exams
22 April, 2023 23 April, 2023	Id-UI-Fitr/ParshuramJayanti Sunday
5 th Week 24 April -29 April	Barkhausen criterion for oscillation, Tuned collector common emitter oscillator
30 April, 2023	Sunday

KVA DAV College for Women, Karnal

**Lesson Plan for the Even Semester
(February to May, 2023)**

Name of the Teacher – Ms.Priya Kamboj

Class- B.sc-First year (IInd SEM)

Subject- Semiconductor devices

Paper- PH-202

May, 2023 1st Week 1 May -6 May	Hartley oscillator, C.R.O. (Principle and Working).
7 May, 2023	Sunday
2nd Week 8 May -13 May	Revision and class test
14 May, 2023	Sunday
17 May,2023 Onwards	University Examinations

KVA DAV College for Women, Karnal

Lesson Plan for the Even Semester
(February to May, 2023)

Name of the Teacher – Ms.Priya Kamboj

Class- B.Sc-Second year(IVth sem)

Subject- Wave and optics-II

Paper- PH-402

February,2023 1 st Week 1Feb-4 Feb	Unit-1: Polarization: Polarization(Introduction)
5Feb, 2023 2 nd Week 6Feb -11Feb	Guru RavidasJayanti, Sunday Polarization by reflection, refraction and scattering, Malus Law
12Feb, 2023 3 rd Week 13Feb -17 Feb	Sunday Phenomenon of double refraction, Huygens's wave theory of double refraction (Normal and oblique incidence), Analysis of polarized Light
18 Feb, 2023 19 Feb,2023	MahaShivaratri Sunday
4 th Week 20Feb -25 Feb	Nicol prism, Quarter wave plate and half wave plate, production and detection of (i) Plane polarized light (ii) Circularly polarized light and (iii) Elliptically polarized light
26 Feb, 2023	Sunday
5 th Week 27 Feb -28 Feb	Optical activity, Fresnel's theory of optical rotation, Specific rotation, Polarimeters (half shade and Biquartz).

KVA DAV College for Women, Karnal

**Lesson Plan for the Even Semester
(February to May, 2023)**

Name of the Teacher –Ms.Priya Kamboj

Class-B.Sc-Second Year (IVth SEM)

Subject- Wave and Optics II

Paper- PH-402

March, 2023 1stWeek 1March -4 March	Unit-II: Fourier analysis Fourier theorem and Fourier series, evaluation of Fourier coefficient, importance and limitations of Fourier theorem, even and odd functions
2nd Week 5 March -12 March, 2023	Holi Break
3rdWeek 13 March-18 March	Fourier series of functions $f(x)$ between (i) 0 to 2π , (ii) $-\pi$ to π , (iii) 0 to π , (iv) $-L$ to L , complex form of Fourier series, Application of Fourier theorem for analysis of complex waves
19 March,2023	Sunday
4thWeek 20March-25 March	Solution of triangular and rectangular waves, half and full wave rectifier outputs, Parseval identity for Fourier Series, Fourier integrals.
23 March, 2023	ShaheediDiwas/Martyrdom Day of Bhagat
26 March, 2023	Singh, Rajguru&Sukhdev
30 March, 2023	Sunday
30 March, 2023	Ram Navmi
5th Week 27 March- 31 March	Unit III: Fourier transforms Fourier transforms and its properties

KVA DAV College for Women, Karnal

**Lesson Plan for the Even Semester
(February to May 2023)**

Name of the Teacher – Ms.Priya Kamboj

Class- B.sc-Second Year (IVth SEM)

Subject-Wave and Optics II.

Paper- PH-402

April, 2023 1st Week 1 April, 2023	Application of Fourier transform (i) for evaluation of integrals, (ii) for solution of ordinary differential equations, (iii) to the following functions: 1. $f(x) = e^{-x^2/2} \cos x a$
2 April, 2023	Sunday
2nd Week 3 April -8 April	Geometrical Optics I Matrix methods in paraxial optics, effects of translation and refraction.
4 April, 2023 9 April, 2023	MahavirJayanti Sunday
3rd Week 10April - 15April	Derivation of thin lens and thick lens formulae, unit plane, nodal planes, system of thin lenses. Class Test
14 April, 2023 16 April, 2023	Vaisakhi/Dr. B.R. AmbedkarJayanti Sunday
4thWeek 17 April -21 April	Sessional Exams
22 April, 2023 23 April, 2023	Id-Ul-Fitr/ParshuramJayanti Sunday
5thWeek 24 April -29 April	Unit-IV: Geometrical Optics II Chromatic, spherical, coma, astigmatism and distortion aberrations and their remedies.
30 April, 2023	Sunday

KVA DAV College for Women, Karnal

**Lesson Plan for the Even Semester
(February to May, 2023)**

Name of the Teacher – Ms.Priya Kamboj

Class- B.sc- Second year (IVth SEM)

Subject- Wave and Optics II

Paper- PH-402

May, 2023 1st Week 1 May -6 May	Fiber Optics Optical fiber, Critical angle of propagation, Mode of Propagation, Acceptance angle, Fractional refractive index change
7 May, 2023	Sunday
2nd Week 8 May -13 May	Numerical aperture, Types of optics fiber, Normalized frequency, Pulse dispersion, Attenuation, Applications Fiber optic Communication, Advantages. Revision and class test
14 May, 2023	Sunday
17 May,2023 Onwards	University Examinations