

Govt. College, Nagina (Nuh)

(Session 2021-22)

Subject: Physics

Class: B.Sc.1st Semester

Lesson Plan: Month wise

Month	Topic Name
Nov. 2021	Basic concepts of classical mechanics (Mechanics of single & system of particles, conservation laws, centre of mass, constrained motion, DOF) Mathematical Background Electrostatic Field Numericals
Dec. 2021	Generalized coordinates Magnetostatics Assignment-1 Numericals
Jan. 2022	Electromagnetic theory Numericals Assignment-2
Feb. 2022	Dynamics of Rigid Body Numericals Revision, Tests

Subject Teacher

(Mrs. Seema)

Govt. College, Nagina (Nuh)

(Session 2021-22)

Subject: Physics Practical

Class: B.Sc.1st Semester

Lesson Plan: Month wise

Month	Experiment Name
Nov. 2021	1. Moment of Inertia of Flywheel. 2. Surface tension by Jeager's method.
Dec. 2021	1. MOI of irregular body using Torsion Pendulum. 2. 'g' by Bar pendulum. 3. Elastic constants by Searle's method.
Jan. 2022	1. Young's modulus by bending of beam. 2. Modulus of rigidity by Maxwell's needle. 3. Thermal conductivity by Searle's method.
Feb. 2022	Revision

Subject Teacher

(Mrs. Seema)

Govt. College, Nagina (Nuh)

(Session 2021-22)

Subject: Physics

Class: B.Sc.2nd Semester

Lesson Plan: Month wise

Month	Topic Name
April 2022	Electromagnetic Induction AC circuit analysis Semiconductor Diodes Diode Rectifiers Transistors Assignment-1, Numericals
May 2022	Properties of Matter (Elasticity) Kinetic Theory of Gases Theory of Relativity Assignment-2, Numericals
June 2022	Transistor Amplifiers Oscillators Numericals Revision, tests

Subject Teacher

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Govt. College, Nagina (Nuh)

(Session 2021-22)

Subject: Physics Practical

Class: B.Sc.2nd Semester

Lesson Plan: Month wise

Month	Experiment Name
April 2022	<ol style="list-style-type: none">1. High resistance by substitution method.2. Zener diode voltage regulator characteristics.3. Frequency of A.C. mains & capacity of electrical vibrator.
May 2022	<ol style="list-style-type: none">1. Frequency of A.C. mains by sonometer using electromagnet.2. Forward and reverse bias characteristics of a semiconductor diode.3. Characteristics of solar cell.
June 2022	<ol style="list-style-type: none">1. Inverse square law by Photocell.2. Inductance (L) by A.C. method (Anderson Bridge) <p style="text-align: center;">Revision</p>

Subject Teacher

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Govt. College, Nagina (Nuh)

(Session 2021-22)

Subject: Physics

Class: B.Sc.3rd Semester

Lesson Plan: Month wise

Month	Topic Name
Oct. 2021	Fourier Analysis and Fourier Transforms Applications of Fourier Transforms and Fourier Series Numericals
Nov. 2021	Computer programming Assignment-1
Dec. 2021	Geometrical Optics (i) Matrix methods in paraxial optics (ii) Aberrations Thermodynamics-I (i) Entropy (ii) Liquefaction of gases
Jan. 2022	Thermodynamics-II (i) Latent heat & triple point (ii) Thermodynamical functions & relations Assignment-2 Numericals
Feb. 2022	Interference by Division of Wavefront Revision, Tests

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Govt. College, Nagina (Nuh)

(Session 2021-22)

Subject: Physics Practical

Class: B.Sc.3rd Semester

Lesson Plan: Month wise

Month	Experiment Name
Oct. 2021	1. R.I. and Dispersive power of prism 2. Graph between wavelength & minimum deviation for various lines from mercury discharge source
Nov. 2021	1. Wavelength & number of lines per cm of Na light using Diffraction Grating 2. Resolving power of Telescope.
Dec. 2021	1. Comparison of illuminating powers by a photometer 2. Wavelength by Newton's rings.
Jan. 2022	1. Ordinary and Extraordinary R.I. for Calcite or Quartz. 2. Equivalent focal length of a lens system by nodal slide assembly.
Feb. 2022	Revision

Subject Teacher

(Mrs. Seema)

Govt. College, Nagina (Nuh)

(Session 2021-22)

Subject: Physics

Class: B.Sc.4th Semester

Lesson Plan: Month wise

Month	Topic Name
April 2022	Interference by Division of Amplitude Fresnel's Diffraction Fraunhofer diffraction Assignment-1 Numericals
May 2022	Statistical Physics-I (some basic ideas of Statistical physics) Entropy Boltzmann statistics Bose-Einstein statistics Fermi Dirac Statistics Assignment-2 Numericals
June 2022	Polarization of light waves & double refraction Polarimetry Revision Test

Subject Teacher

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Govt. College, Nagina (Nuh)

(Session 2021-22)

Subject: Physics Practical

Class: B.Sc.4th Semester

Lesson Plan: Month wise

Month	Experiment Name
April 2022	<ol style="list-style-type: none">1. Common base and common emitter characteristics of a transistor.2. Ripple factor in a.d.c. power supply.3. Study of series and parallel resonance circuits
May 2022	<ol style="list-style-type: none">1. Print out all natural (even/odd) number between given limits using computer.2. To find maximum, minimum and range of a given set of numbers using computer.3. Find the roots of a quadratic equation.
June 2022	<ol style="list-style-type: none">1. Integration of a definite integral by the trapezoidal rule.2. Study of voltage doubler and tripler circuits. <p>Revision</p>

Subject Teacher

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Govt. College, Nagina (Nuh)

(Session 2021-22)

Subject: Physics

Class: B.Sc.5th Semester

Lesson Plan: Month wise

Month	Topic Name
Oct. 2021	Origin of Quantum mechanics (Photoelectric effect, Compton effect, de-Broglie hypothesis, wave packet & function, Phase velocity, group velocity, Heisenberg's uncertainty principle)
Nov. 2021	Wave-particle duality Gamma Ray Microscope Schrodinger wave equation Numericals
Dec. 2021	Crystal structure-I Applications of Schrodinger wave equation Numericals
Jan. 2022	Crystal structure-II, Crystal Diffraction Numericals Assignment-2
Feb. 2022	Reciprocal lattice Specific heat of solids Revision, Test

Subject Teacher

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Govt. College, Nagina (Nuh)

(Session 2021-22)

Subject: Physics Practical

Class: B.Sc.5th Semester

Lesson Plan: Month wise

Month	Experiment Name
Oct. 2021	<ol style="list-style-type: none">1. e/m by Thomson method.2. Transistor as voltage Amplifier in C-B Configuration.
Nov. 2021	<ol style="list-style-type: none">1. Transistor as voltage Amplifier in C-E Configuration.2. Study of B-H Curve by C.R.O.
Dec. 2021	<ol style="list-style-type: none">1. Product of two matrices A and B of different dimensions.2. Arrange marks of students in descending or ascending orders.3. To study Hall Effect.
Jan. 2022	<ol style="list-style-type: none">1. Study of Hartley Oscillator.2. Evaluate the definite integral through Simpson's one third rule.3. To find the average and the standard deviation.
Feb. 2022	Revision

Subject Teacher

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Govt. College, Nagina (Nuh)

(Session 2021-22)

Subject: Physics

Class: B.Sc.6th Semester

Lesson Plan: Month wise

Month	Topic Name
April 2022	Spectroscopy of atoms (Alkali metals spectra, Vector atom model & doublet fine structure of alkali metals for 2-valence electrons, Different Coupling schemes) Zeeman effect, Paschen back effect, Stark effect Molecular physics Assignment-1
May 2022	Nuclear structure & properties of nuclei Interaction of nuclear radiations Laser Assignment-2
June 2022	Nuclear reactions & reactors Nuclear accelerators & nuclear radiations Detectors Revision Test

Subject Teacher

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Govt. College, Nagina (Nuh)

(Session 2021-22)

Subject: Physics Practical

Class: B.Sc.6th Semester

Lesson Plan: Month wise

Month	Experiment Name
April 2022	<ol style="list-style-type: none">1. Wave length of Sodium light by fresnel's biprism.2. Diameter of Lycopodium powder particles by Carona rings.3. Young's modulus by Newtons rings method.
May 2022	<ol style="list-style-type: none">1. Resolving power of plane transmission grating.2. Thickness of a thin plate using air wedge.3. Resolving power of a prism.
June 2022	<ol style="list-style-type: none">1. Double sit interference by He-Ne laser.2. Diameter of a thin wire by diffraction method (using He-Ne Laser). <p>Revision</p>

Subject Teacher

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