

<u>Govt. College for Women, Shahzadpur (Ambala)</u>			
<u>Lesson Plan(2023-24 Even)</u>			
Name of the Teacher:- Sonia Devi		Paper Code: B23-PHY-204	
Paper Name- Physics Fundamentals-II		Session: 2023-24	
Class : B.A I		Internal Marks: 15	
Subject: PHYSICS		External Marks: 35	
<u>Course Objectives</u>		1.It focuses on the basic knowledge about nature of light and various phenomenon observed by individuals due to some characteristics/properties of light ray. 2.It will tell about the functioning of some optical instruments,one of these is human eye. 3.It will give the knowledge about charge conduction,electric wiring in houses and the active elements. 4.About structure of an atom and nucleus,properties of alpha,beta and gamma rays	
<u>Course Outcome</u>		Students will learn about the happening of physical phenomenon due to light,use of converging and diverging lens,why earthing in our house is necessary,electric and magnetic field,atomic number and mass number of an atom,X-rays characteristics and	
<u>Lesson Plan from 15.02.2024 to 15.05.2024(Tentative)</u>			
Month	Dates	Topics To be Covered	Assignment/ Test/ others

February	19-27/02/2024	Light and optics-Nature and properties of light, its speed, frequency and wavelength; Reflection of light-types of reflection and their importance in daily life, laws of reflection, multiple reflection by mirrors and their applications. Refraction of light- laws of refraction, refractive index, refraction of light through prism (dispersion of light), formation Rainbow, twinkling of stars, advance Sunrise and delayed Sunset; Scattering of light and blue colour of the sky; apparent depth, total internal reflection and its	
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March	04-12/03/2024	image formation through reflection-images formed by plane mirrors, multiple images formed by two flat mirrors and optical illusions; images formed by parabolic mirrors and spherical mirrors- Concave and convex mirrors, ray diagrams, mirror equation and magnification; applications of plane and curved mirrors in daily life. Image formation through refraction-images by convex and concave lenses, ray diagrams and lens equation.	
	18-19/03/2024	Optical instruments- Camera, eye, telescope and microscope	

April	01-09/04/2024	Electricity- electric charge, types of charges, unit of charge, frictional electricity, electricity by conduction and electric current, units of electric current, measurement of current, conductors and insulators; resistance, resistivity and Ohm's law, electric potential and potential difference, emf; Electric circuit- resistor, capacitor, battery, ammeter and voltmeter; Series and parallel combinations of resistors, electrical wiring in houses and electrical safety (fuse, hot wire, neutral, ground and short circuit), electric power and electric power transmission; Heating	
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	15-23/04/2024	electric current- Magnetic field and field lines, bar magnet, magnetic field and direction of field due to a current- through straight conductor and through a circular loop; solenoid, electromagnet	Assignment
	29-30/04/2024	Structure of an atom- Rutherford's model of an atom, Bohr's model of an atom and composition of the atom-electron, proton and neutron, orbits or shells (energy levels in an atom), distribution of electrons in different shells of the atom, atomic number and atomic mass of an atom, core shell and outer shell, valency of an atom, excitation and ionization of the atom, meaning of atomic transitions	Test

May	06-14/05/2024	Discovery of X-rays, Generation of X-rays, their characteristics, applications and harmful effects; Composition of nucleus, meaning of nuclear transitions and properties of α-, β- and γ- rays Revision	
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