

ST. LAWRENCE HIGH SCHOOL

27, BALLYGUNGE CIRCULAR ROAD, KOLKATA - 700019



Session Plan/ Syllabus Coverage for the Academic Year 2025-2026

Subject: Physics

Term: 1st

Subject Co-ordinator: Soumitra Maity

No. of Working Days: 103 No. of Periods Available: 73

Class: XII

Name of the Book: ISC Physics(Nootan)

Sections: A

MONTH	NO. OF PERIODS	LESSONS	TOPICS COVERED	CLASS WORK	TEACHING AIDS	
April	14	Electrostatics (Unit-I)(Pg No1)	Coulomb's Law Torque experienced by a dipole placed in an electric field Electric potential energy Gauss's Theorem & its applications in different cases. Capacitor, energy stored in a capacitor, Van-de-Graff generator, Dielectric polarization	Concepts related to all the subtopics will be discussed and different types of numericals will be solved from exercise P No. – 48, 90, 135, 197	Model demonstration on Gauss's gtheorem to find E for different cases Model demonstration for the re- distribution of charge in capacitors.	
		Current Electricity(Unit-II) (Pg No209)	Ohm's law, graphical explanation, internal resistance & p.d. e.m.f. of a cell, combination of cells	& Important points and notes related to topics will be given. Important questions and numerical will be discussed from exercise Pg No263	Experimentation to verify Ohm's Law.	
May		Current Electricity(Unit-II) Continued(Pg No272)	. Kirchhoff's law, Bridges and potentiometer.	Important points and notes related to topics will be given. Important questions and numerical will be discussed from exercise Pg No335	Experimentation of comparing emf by a potentiometer instrument.	
		Magnetic effect of current & Magnetism(Unit-III) (Pg No. 338)	Oersted's experiment, Biot-Savat Law & its' applications, Ampere circuital law & its application, cyclotron principle, Torque experienced by a current loop in magnetic field.	Concepts related to all the subtopics will be discussed and different types of numericals will be solved from exercise Pg No403	Model demonstration of Oersted's experiments, and torque on a loop by a bar magnet and a conducting loop.	
June		Magnetic effect of current & Magnetism(Unit-III) Continued(Pg No415)	Magnetism, Diamagnetic, Paramagnetic and ferromagnet materials.	Important questions and numerical will be discussed from exercise Pg No439 467 489	Model demonstration on hysteresis.	
		Unit Test -1 begins from 16 th June. Syllabus for Unit Test -1: Electrostatics (Unit-I) (Page no. 1 to 208)				
July		(Cint-1v) (Fg No493)	Induction-Faraday's Law, Lenz's Law, Self Inductance an Mutual Inductance, Io, Vo, Ir.m.s, Vr.m.s & LCR Circuit, A.C.		Model demonstration on EM induction and ac circuit.	
		No629)	ELECTROMAGNETIC SPECTRUM, E.B.C, DIFFERENT SOURCES OF E.M. WAVES, THEIR USES, Displacement current, Amperes circuital law	Important points and notes related to topics will be given.	Model demonstration of EM wave as E-component and B-component.	
Aug	. 7		Spherical mirror, Refraction of light, Refraction at Spherical surfaces, Lenses & its related fact prism, scattering, Raman Effect. Optical Instrument – Microscope, telescope & m.	Concepts related to all the subtopics will be discussed and different types of numericals will be solved from exercise Pg No688, 721, 777	Experimentation by concave mirror to find image at different u.	
		Wave Optics(Unit-VI) (Pg No. 849)	Interference, Diffraction		Model demonstration on superimposition of waves.	
Sept st term	, E	Electrostatics (Unit-I)	Gauss's Theorem & its applications in different cases.	Previous year's Board's papers will be discussed.		
egins on 5.09.25	Syllabu:	s for 1 st term examination	- Electrostatics (Unit-I), Current Electricity(Unit-II), Magnetic Electromagnetic waves(Unit-V), Ray Optics and Wave Optics (Un	e effect of current & Magnetism(Unit-III), Electromagnetic ind it-VI).	duction and A.C. (Unit-IV),	

Teachers are requested to prepare a LESSON PLANS for each Topic month wise.

Signature of the Co-Teachers: Soumitra Maily

13.5.25 Submitted on: 21.04.2025

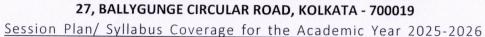
Academic Co-Ordinator: Soumak chatterica

VICE PRINCIPAL:

PRINCIPAL:



ST. LAWRENCE HIGH SCHOOL



Subject: Physics

Term: 2nd

Subject Co-ordinator: Soumitra Maity

Name of the Book: ISC Physics(Nootan)

No. of Working Days: 52

No. of Periods Available: 32

Class: XII

Sections: A

MONTH	NO. OF PERIODS	LESSONS	TOPICS COVERED	CLASS WORK	TEACHING AIDS
Oct	12	Dual nature of matter & radiation (Unit-VII) (Pg No. 936)	Einstein's photo electric enquiry: particle nature of light. Matter waves, de-Broglie relation	Concepts related to all the subtopics will be discussed and different types of numericals will be solved from exercise Pg No. 969, 990	Model demonstration on photo electric effect.
		**** Last Date of Submission of Physics Project is 08.10.2025 ****			
Nov	16	Atoms & Nuclei (Unit-VIII) (Pg No. 999)	BOHR MODEL,H-SPECTRUM, X-RAYS, RADIOACTIVITY,DECAY-LAW,MASS ENERGY RELATION,MASS DEFECT,NUCLEAR FISSION AND FUSION	Important points and notes related to topics will be given. Important questions and numerical will be discussed from exercise Pg No1032, 1059, 1083, 1104	Model demonstration for mass defect and B.E. of atom.
		Electronic devices (unit-IX) (Pg No. 1108)	Semiconductor, I-V characteristics, Zener Diode	Concepts related to all the subtopics will be discussed and different types of numericals will be solved from exercise Pg No. 1124, 1152	Experimentation of nonlinear current through p-n diode and zener diode.
Dec Rehearsal Test begins on 08.12.25		Magnetic effect of current &	Oersted's experiment, Biot-Savat Law & its' applications, Ampere circuital law & its application, cyclotron principle, Torque experienced by a current loop in magnetic field	Previous year's Board's papers will be discussed.	

Teachers are requested to prepare a LESSON PLANS for each Topic month wise.

Signature of the Co-Teachers: 1. Soumitra Maily 2.

Submitted on: 21.04.2025

Academic Co-ordinator: Soumak chatterjei

VICE PRINCIPAL

PRINCIPAL