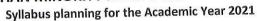


ST. LAWRENCE HIGH SCHOOL

A JESUIT CHRISTIAN MINORITY INSTITUTION





SUBJECT: Physics

TEACHERS' NAMES: Ambarnath Banerjee and Soumitra Maity

CLASS: XII

SECTION: A2 and A1

NO. OF WORKING DAYS:		CLASS: XII	52011011111	
MONTH	LESSONS	TOPICS COVERED	HOME-WORK	CLASS-WORK
JANUARY		-		
FEBRUARY				
MARCH				
APRIL		5 ×		
MAY				
JUNE				

Teachers are requested to prepare a LESSON PLAN for each Topic to be taught. The Lesson plans are to be submitted along with the monthly planner.

Name of the Teachers:

AMBARNATH BANERJEE

SOUMITRA MAITY

Academic Co-ordinator:

Submitted on: Tay ashree 8horke 18/3/21

Signature of Teachers:

Soumitra Monta (15.03.21)

PRINCIPAL



ST. LAWRENCE HIGH SCHOOL

A JESUIT CHRISTIAN MINORITY INSTITUTION

Syllabus planning for the Academic Year 2021

SUBJECT: PHYSICS TERM: Pre-Test

CLASS: XII

TEACHERS' NAMES: Ambarnath Banerjee and Soumitra Maity

SECTION: A2 and A1

o, of working	DAYS:- 49	•	CLASS: XII SECTION: AZ and A				
MONTH	LESSONS	TOPICS COVERED	HOMEWORK	CLASS WORK			
JULY 1 st term starts on 05.07.21	Electrostatics (Unit-I)	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, Vande-Graff generator Dielectric	Theorem I:Field Intensity at a distance & for an electric dipole along its axis Verify τ = PXE Few problems related to Gauss's Theorem Determination of capacitance for a parallel plate capacitor	Explanation of Topics Understanding of the topics covered Graphical Explanation Few problems related to P.E Problems related to capacitors with circuit			
AUGUST	Current Electricity(Unit-II) Magnetic effect of current & Magnetism(Unit-III)	Ohm's law, graphical explanation, internal resistance & p.d. & e.m.f. of a cell, combination of cells Kirchhoff's law, Bridges and potentiometer Oersted's experiment, Biot-Savat Law & its' applications, Ampere circuital law & its application, cyclotron principle, Torque experienced by a current loop in uniform magnetic field	Estimation of main current flowing through & mixed circuit Verify τ=BinAsinθ Working principle of Transformer	Problems related to current electricity Explanation of theorems mentioned in the topics covered and related numerical Graphical explanations			
SEPTEMBER 1 ST TERM EXAM	Magnetic effect of current & Magnetism(Unit-III) Electromagnetic induction (Unit-IV)	Magnetism Induction-Faraday's Law, Lenz's Law, Self Inductance and Mutual Inductance,	and the second s				
STARTS ON 16 TH SEPTEMBER	SYLLABUS FOR 1 ST TERM EXAM: Electrostatics (Unit-I), Current Electricity(Unit-II), Magnetic effect of current & Magnetism(Unit-III) AND Electromagnetic induction (Unit-IV)						

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Name of the Teachers:

AMBARNATH BANERJEE

SOUMITRA MAITY

Submitted on: Tougetnee Shape 15/3/21 Academic Co-ordinator:

Signature of Teachers:

Soumitra Mailin (15.03.21)

PRINCIPAL



ST. LAWRENCE HIGH SCHOOL

A JESUIT CHRISTIAN MINORITY INSTITUTION

Syllabus planning for the Academic Year 2021

SUBJECT: PHYSICS TERM: Selection Test

CLASS: XII

SECTION: A2 and A1

TEACHERS' NAMES: Ambarnath Banerjee and Soumitra Maity

o, of working	DAYS:- 73	CLASS: XII			
MONTH	LESSONS	TOPICS COVERED	HOMEWORK	CLASS WORK	
OCTOBER	A.C. (Unit-IV)	I _o ,V _o ,I _{r.m.s} ,V _{r.m.s} & LCR Circuit,A.C.	SELECTED NUMERICALS FROM AC	RELATED THEORIES AND NUMERCALS WILL BE DISCUSSED	
nd term tarts on	Electromagnetic waves(Unit-V)	ELECTROMAGNETIC SPECTRUM, E.B.C, DIFFERENT SOURCES OF E.M. WAVES, THEIR USES, BOHR MODEL, H-SPECTRUM,			
)1.10.21	Optics(Unit-VI)	Spherical mirror, Refraction of light, Refraction at Spherical surfaces, Lenses & its related fact prism, scattering, Raman Effect	Verify lens formula, 1/v - 1/u =1/f Verify mirror equation = i/v + 1/u =1/f	Few problems related to lens & mirror Theorems related to lens and	
NOVEMBER		Optical Instrument – Microscope, telescope & magnifying prism Wave Optics – Interference, Diffraction, Polarization	Ray diagram for a real object & its' image through lens	prism Interference	
DECEMBER	Dual nature of matter & relation (Unit-VII)	Einstein's photo electric enquiry: particle nature of light, Matter waves, de-Brogic relation	Establish Einstein's photo electric equation with quantum theory.	Explanation of photo electric effect. Few problems related to d Broglie wave length.	
	Atoms & Nuclei (Unit-VIII)	X-RAYS,RADIOACTIVITY,DECAY-LAW,MASS ENERGY RELATION,MASS DEFECT,NUCLEAR FISSION AND FUSION	Problems on X-Ray Wave Length	Increasing & decreasing order of E.M. Waves according to	
				wavelength and frequency Nuclear Fission & Fusion equations and explanations	
				Moseley's Law	
	Last date of submission of Physics project – 06.12.21 Last date of submission of Physics project – 06.12.21 I-V graphs of semiconductors &				
JANUARY 2022	Electronic devices (unit-IX)	Semiconductor, I-V characteristics, Zener Diode, Transistor logic gates (OR, AND, NOT, NAND, NOR)	Draw logic gate circuit symbols with Truth Table.	Transistor	
	Communication System(Unit-X)	BLOCK DIAGRAM,SKY AND SPACE WAVE PROPAGATION,MODULATION	Flow chart of Block Diagram for communication system	-	
FEBRUARY 2022	Revision of entire syllabus				
2 nd term exam starts on 17.02.22	SYLLABUS FOR 2 nd TERM EXAM :	The entire portion completed in this academic year.			

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Name of the Teachers:

AMBARNATH BANERJEE

SOUMITRA MAITY

Submitted on: Jourshue Slerpe 15/3/2)

Signature of Teachers:

Soumitra Moula (15.03.21)

Academic Co-ordinator:

PRINCIPAL