



# ST. LAWRENCE HIGH SCHOOL

A JESUIT CHRISTIAN MINORITY INSTITUTION



Syllabus Planner for the year 2018

TERM: FIRST TERM

TEACHER'S NAME: NANDINI CHATTERJEE , SOUMITRA MAITY

No. of working days:- 10

No. of periods available: 5(ESTIMATED)

Subject: PHYSICS

CLASS: XI.

SECTION: . A1,A2

MONTH	NO. OF PERIODS	LESSONS	TOPICS COVERED	HOMEWORK	CLASS WORK
JANUARY					
FEBRUARY					
MARCH					
APRIL	05	UNIT I: Physical world and measurement	Need for measurement, systems of units, accuracy, precision, dimension	Short questions MCQs from different examination papers, numericals	Discussions, derivations, explanations Numericals

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.

PRINCIPAL

Submitted on.....24/1/18.....

Signature of Teacher: .....Nandini C. Chatterjee.....

ACADEMIC CO-ORDINATOR

Signature of Academic Co-ordinator: .....Soumitra Maity.....  
24/1/18.  
St. Lawrence High School

VICE PRINCIPAL

Signature of Vice Principal



# ST. LAWRENCE HIGH SCHOOL

A JESUIT CHRISTIAN MINORITY INSTITUTION



Syllabus Planner for the year 2018

TERM: . FIRST AND SECOND

TEACHER'S NAME: NANDINI CHATTERJEE, SOUMITRA MAITY

No. of working days:- 50

No. of periods available: 39

Subject: PHYSICS

CLASS: XI.

SECTION: A1, A2

MONTH	NO. OF PERIODS	LESSONS	TOPICS COVERED	HOMEWORK	CLASS WORK
MAY	06	UNIT II: Kinematics	Elementary concepts of differentiation and integration Frame of reference, types of motion, Scalar and vector, projectile motion, uniform circular motion	Short questions Questions from different examination papers, numericals	Discussions, derivations, explanations Numericals Questions from W.B. council papers and test papers
JUNE	10	UNIT III: Laws of motion	Concept of force, inertia, impulse, friction Newton's laws of motion, dynamics of uniform circular motion	Short questions Questions from different examination papers, numericals	Discussions, derivations, explanations Statement and explanation of the laws Graphical representation Numericals Questions from W.B. council papers and test papers
JULY	14	UNIT IV: Work, energy, power  FIRST TERM TEST for CLASS XI starts from 25 <sup>TH</sup> JULY	Concepts of work, power and energy, work-energy theorem, Conservation of mechanical energy, Elastic and inelastic collision	Short questions Questions from different examination papers, numericals	Applications of the theorems Discussions, derivations, explanations Statement and explanation of the laws Work done by and against a force, by a couple, against friction, graphical representation Kinetic energy, potential energy Conservative, non-conservative, dissipative forces, mass-energy equivalence Graphical representation Numericals Questions from W.B. council papers and test papers
AUGUST	09	UNIT V: Motion of system of particles and rigid body  UNIT VI: Gravitation	Centre of mass, moment of a force, torque, angular momentum, conservation of angular momentum, equilibrium, moment of inertia, parallel and perpendicular axes theorems  Keplar's laws of planetary motion, variations of acceleration due to gravity, gravitational potential energy, escape velocity, geo-stationary satellites	Short questions Questions from different examination papers, numericals	Applications of Pascal's law, Bernoulli's theorem Application of surface tensions ideas to drops, bubbles Discussions, derivations, explanations Numericals Questions from W.B. council papers and test papers

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PRINCIPAL

ACADEMIC CO-ORDINATOR  
St. Lawrence High School

VICE PRINCIPAL

Submitted on: 24/11/18  
Signature of Teacher: Nandini Chatterjee, Soumitra Maity



FOR GOD AND COUNTRY



# ST. LAWRENCE HIGH SCHOOL

A JESUIT CHRISTIAN MINORITY INSTITUTION

Syllabus Planner for the year 2018

TERM: PRE-SELECTION

TEACHER'S NAME: . NANDINI CHATTERJEE, SOUMITRA MAITY

No. of working days:-92.

No. of periods available: 40

Subject: PHYSICS

CLASS: XI

SECTION: A1,A2

MONTH	NO. OF PERIODS	LESSONS	TOPICS COVERED	HOMEWORK	CLASS WORK
SEPTEMBER	12	UNIT VII: Properties of Bulk matter	Hooke's law, Young's modulus, Bulk modulus, modulus of rigidity, Poisson's ratio Pascal's law, viscosity, Stoke's law, terminal velocity, Reynold's number, streamline and turbulent flow, critical velocity, Bernoulli's theorem, Surface tension	Short questions Questions from different examination papers, numericals	Discussions, derivations, explanations Numericals
OCTOBER	09	UNIT VII: Properties of Bulk matter (contd.)	Heat, temperature, thermal expansion of solids, liquids and gases, ideal gas laws, isothermal and adiabatic processes, anomalous expansion, specific heat capacity, Cp, Cv, calorimetry, change of state, specific latent heat capacity, heat transfer, Kirchoff's law, green house effect, thermal conductivity, Newton's law of cooling, Wein's displacement law, Stefan's law	Short questions Questions from different examination papers, numericals	Discussions, derivations, explanations Numericals Questions from W.B. council papers and test papers
NOVEMBER	10	UNIT VIII: Thermodynamics	Laws of thermodynamics, heat work and internal energy, heat engines and refrigerators	Short questions Questions from different examination papers, numericals	Assumptions of kinetic theory of gases Numericals Questions from W.B. council papers and test papers
DECEMBER	09	UNIT IX: Behaviour of perfect gas and kinetic theory	Equation of state of a perfect gas, kinetic theory of gases, kinetic energy and temperature, degrees of freedom, law of equilibrium of energy, concept of mean free path, Avogadro's number	Short questions Questions from different examination papers, numericals	Discussions, derivations, explanations Numericals Questions from W.B. council papers and test papers

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PRINCIPAL

ACADEMIC CO-ORDINATOR

VICE PRINCIPAL

Submitted on: 24/11/18

Signature of Teacher: Nandini C. Chatterjee

St. Lawrence High School



# ST. LAWRENCE HIGH SCHOOL

27, BALLYGUNGE CIRCULAR ROAD, KOLKATA- 700019



TEST

TERM:PRE-SELECTION

TEACHER'S NAME: NANDINI CHATTERJEE, SOUMITRA MAITY

Syllabus planning for the academic year 2019

Subject: PHYSICS

CLASS: XI

SECTION: A1 AND A2

No. of working days:-16

No. of periods available: 05

MONTH	NO. OF PERIODS	LESSONS	TOPICS COVERED	HOMEWORK	CLASS WORK
JANUARY	05	UNIT X: Oscillations and waves	Periodic motion, simple harmonic motion – equation, phase, energy in SHM Wave motion, longitudinal and transverse wave, principle of superposition of waves, reflection of waves, standing waves in strings and organ pipes, fundamental mode and harmonics, beats, Doppler effect	Short questions Questions from different examination papers, numericals	Discussions, derivations, explanations Numericals Questions from W.B. council papers and test papers
FEBRUARY					
MARCH					
APRIL					

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PRINCIPAL

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Submitted on: 24/1/18  
Signature of Teacher: Nandini C. Chatterjee

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