

Cambridge International School, Mohal, Kullu
Class-XI
Subject – Physics
Subject Code (042)
Curriculum
Session -2020-21

Unit No/ (Month.)	Name	Practical	Methodology	Assessment
Unit-I (<p>Physical World and Measurement. After completion of chapter students will be able to: Distinguish between Fundamental and Derived physical quantities. Distinguish between system of units. Define the definitions of basic and supplementary SI units. Define dimensions of physical quantities. Analyze errors in measurement.</p>	<p>1. To measure diameter of a small spherical/cylindrical body and to measure internal diameter and depth of a given beaker/calorimeter using Vernier Calipers and hence find its volume.</p>	<p>Discussion/ Explanation through examples/ Video demonstration/ Notes making</p>	<p>Oral Test/ Class test/ Quizzes on google forms/ lab activity through virtual links.</p>
Unit - II	<p>Kinematics. After end of this chapter students will be able to; Distinguish between point mass and a body. Give definitions of different kinds of motion. Distinguish between scalar and vector quantities. Define distance, displacement. Define accelerated motion. Explain need and representation of vectors. Explain resolution of vectors. Define rectangular components of vectors. Define projectile motion Define circular motion and uniform Circular motion</p>	<p>2.To measure diameter of a given wire and thickness of a given sheet using screw gauge. 3.To determine radius of curvature of a given spherical surface by a spherometer. 4. To determine the mass of two different objects using a beam balance.</p>	<p>Discussion/ Explanation through examples/ Video demonstration/ Notes making</p>	<p>Oral Test/ Class test/ Quizzes on google forms/ lab activity through virtual links.</p>
Unit – III	<p>Laws of motion. After the end of this chapter students will be able to; Define friction, types of friction. State laws of friction, coefficient of</p>			

<p>Unit IV</p>	<p>friction, angle of friction. Differentiate between sliding and rolling friction and method of reducing friction. Analyze circular motion of a car in level and banked Road. Work energy and power After the end of this chapter students will be able to; Define work done by a constant force and variable force. Define energy and also distinguish between various types of energies. Prove work energy theorem for constant and variable force. Define with examples conservative and non-conservative forces. Define collision and differentiate between elastic and inelastic collision in one and two dimension. Motion of system of particles and rigid body After the end of this chapter students will be able to; Define concept of mass of a two particle system. Differentiate between center of mass motion, center of mass of rigid body, center of mass of uniform rod. Give equation of rotational motion. Values of M.I. for simple geometrical object.</p>		<p>Discussion/ Explanation through examples/ Video demonstration/ Notes making</p>	<p>Oral Test/ Class test/ Quizzes on google forms/ lab activity through virtual links.</p>
<p>Unit-V</p>				
<p>Unit-VI</p>	<p>Gravitation After the end of this chapter students will be able to; Give Newton's law of Gravitation and superposition principle. Define Concept of field and gravitational field intensity.</p>	<p>5.To study the variation in volume with pressure for a</p>		

	Distinguish between Gravitational potential and Gravitational potential energy. Define Escape velocity and Orbital velocity.	sample of air at constant temperature by plotting graphs between P and V, and between P and 1/V. 6. To determine the surface tension of water by capillary rise method.		
Unit – VII	Properties of bulk matter. After the end of this chapter students will be able to; Give stress-strain relationship. Define Hooke's law, Young's modulus, Bulk modulus, modulus of rigidity. Define viscosity, Stokes' law, Terminal velocity, Reynold's number, Streamline and Turbulent flow. Critical velocity, Bernoulli's theorem and its applications. Surface energy and Surface tension, Angle of contact, Excess of pressure, Application of surface tension ideas to drops bubbles and capillary rise.	7.To study the relationship between the temperature of a hot body and time by plotting a cooling curve. 8.To determine specific heat capacity of a given solid by method of mixture	Discussion/ Explanation through examples/ Video demonstration/ Notes making	Oral Test/ Class test/ Quizzes on google forms/ lab activity through virtual links.
Unit VIII	Thermodynamics After the end of this chapter students will be able to; Give concept of thermal equilibrium. Define zeroth law of equilibrium. State first law of thermodynamics. Differentiate between isothermal and adiabatic processes.			
Unit IX	Behavior of perfect gas and kinetic theory After the end of this chapter students will be able to: State perfect gas equation and work done on compressing gas. Define kinetic energy and temperature. Give law of equipartition of energy and application to specific heat capacity of gas. Define concept of mean free path. Give Avogadro's number.			
Unit X	Oscillation and waves After the end of this chapter students will be able to; Distinguish between periodic and oscillatory motion.			

<p>Define SHM Some systems executing SHM.</p> <p>State Free and Damped oscillations. Forced oscillations and resonance.</p> <p>Define Wave motion ,transverse and longitudinal waves.</p> <p>Give Displacement relation in a progressive wave.</p> <p>State Speed of travelling wave, reflection of waves.</p> <p>Define Superposition of waves- stationary waves , beats.</p>			
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PRACTICALS

Evaluation Scheme	Maximum Marks: 30
One Major Experiment	5 Marks
One Minor Experiment	4 Marks
Slide preparation	5 Marks
Spotting	7 Marks
Practical Record + Viva Voce	4 Marks
Project Record + Viva Voce	5 Marks
Total	30 Marks