

## SYLLABUS FOR THE ACADEMIC SESSION 2022-23

## Subject - Physics

CLASS - IX

Month Unit Topic **Sub Topic** Practical April 1 Motion Distance and Displacement; Speed and velocity; Uniform and non-uniform acceleration; April Derivation of equation of motion; Numerical; Distance-time and distance- velocity graphs; Equations of motion . Elementary May idea of uniform circular motion; Numerical. Periodic Test- I June 2 Force and Concept of force, balanced and unbalanced force Newton's Laws of Motion. 2 July Force and First law of motion, Inertia and Newton's Mass; Linear momentum; Laws of Newton's second law of motion; Motion. Mathematical formulation of Newton's second law of motion. July Newton's third law of motion, action and reaction forces. August Elementary idea of conservation of momentum; Numerical

Periodic Test- II

problems

September	3	Gravitation	Universal laws of gravitation; Force of gravitation on earth (gravity); Acceleration due to gravity; Motion under the influence of gravity; Mass and weight, free fall; Numerical problems.	Determination of the density of solid (denser than water) by using a spring balance and a measuring cylinder.
October	3	Gravitation	Thrust and pressure; Archimedes Principle; Buoyancy Numerical problems.	Establishing the relation between the loss in weight of a solid when fully immersed in a) tap water b) strongly salty water, with the weight of water displaced by it by taking at least two different solids.
November	4	Work, Energy and Power	Work done by the force, W = F x s cos $\Theta$ ; Concept of positive, negative and zero work done; Numerical problems	
			Periodic Test- III	
November	4	Work, Energy and Power	Energy, Kinetic and potential energy; Law of conservation of energy; Power; Numerical problems.	
December	5	Sound	Production of sound; Sound needs a material medium to travel; Nature of sound and its propagation in various medium, speed of sound; Characteristic of sound, range of hearing.	Verification of the Laws of reflection of sound.
January	6	Sound	Reflection of sound- Echo, SONAR; Numerical problems	Determination of the speed of a pulse propagated through a stretched string/slink (helical spring).
January	Revision			
			Annual Examination	

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Syllabus for Annual Examination : Entire syllabus as prescribed by CBSE