Physics by fiziks

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"Discipline is the Bridge between Goal and Success"

Study Plan of Mechanics and General Properties of Matter for Pre-recorded Batches

(For IIT-JAM, JEST, TIFR and M.Sc Entrance and B.Sc Students)

Days	Enter Your Dates	Topics
Day: 1		**Lecture 1:** Stability Analysis
		Lecture 2: Phase Curve
Day: 2		**Lecture 3:** Small Oscillation in One-Dimension
		Lecture 4: Kinematics Motion in a Straight Line Part-1
		Solve Assignments No. 1: Lect-1 to Lect-3
Day: 3		**Lecture 5:** Kinematics Motion in a Straight Line Part-2
		Lecture 6: Projectile Motion
Day: 4		**Lecture 7:** Newtons Law of Motion
		Lecture 8: Newtons Law - Friction
Day: 5		**Lecture 9:** Newtons Law - Pseudo Force
		Lecture 10: Equation of Constraint
Day: 6		**Revision**
Day: 7		**Revision**
Day: 8		**Lecture 11:** Equation of Constraint Problem
		Lecture 12: Newtons Law Problem
		Solve Assignment No. 2: Lect-4 to Lect-12
Day: 9		**Lecture 13:** Circular Motion
		Lecture 14: Newton's Law in 2-Dimensions Part-1
Day: 10		**Lecture 15:** Newton's Law in 2-Dimensions Part-2
		Lecture 16: Variable Mass and Equation of Motion
		Solve Assignment No. 3: Lect-13 to Lect-15
Day: 11		**Lecture 17:** Variable Mass Part-1
		Lecture 18: Variable Mass Part- 2
		Solve Assignment No. 4: Lect-16 to Lect-18
Day: 12		**Lecture 19:** Properties of Central Force
		Lecture 20: Application of Effective Potential
Day: 13		**Class Test 1: Lect-1 to Lect-12**
Day: 14		**Class Test 2: Lect-13 to Lect-18**
Day: 15		**Lecture 21:** Differential Equation of Orbit
		Lecture 22: Kepler's Problem
Day: 16		**Lecture 23:** Kepler's Law
		Lecture 24: Problems on Central Forces
		Solve Assignments No. 5: Lect-19 to Lect-24
Day: 17		**Lecture 25:** Center of Mass Part-1
		Lecture 26: Center of Mass Part-2
Day: 18		**Lecture 27:** Centre of Mass Motion
		Lecture 28: Moment of Inertia Part-1
		Solve Assignments No. 6: Lect-25 to Lect-27
Day: 19		**Lecture 29:** Moment of Inertia Part-2
		Lecture 30: Moment of inertia Part-3
Day: 20		**Revision**
Day: 21		**Class Test 3: Lect-19 to Lect-24**
Day: 22		**Lecture 31:** Moment of inertia Part-4
		Lecture 32: Moment of Inertia Tensor

Day: 23		**Lecture 33:** Moment of Inertia Tensor Problem
		Lecture 34: Collision Part-1
		Solve Assignment No. 7, 8: Lect-28 to Lect-33
Day: 24		**Lecture 35:** Collision Part-2
		Lecture 36: Work, Power and Energy
		Solve Assignments No. 9: Lect-34 to Lect-35
Day: 25		**Lecture 37:** Work, Power and Energy Numericals
		Lecture 38: Impulse and Momentum
		Solve Assignments No. 10: Lect-36 to Lect-38
Day: 26		**Lecture 39:** Principles of Rotational Motion
		Lecture 40: Rolling Friction and Rotational Energy
Day: 27		**Revision**
Day: 28		**Class Test 4: Lect-25 to Lect-33**
Day: 29		**Lecture 41:** Torque Part-1
		Lecture 42: Torque Part- 2
Day: 30		**Lecture 43:** Angular Momentum
		Lecture 44: Conservation of Angular Momentum
		Solve Assignments No.11: Lect-39 to Lect-44
Day: 31		**Lecture 45:** Fluid and its Properties
		Lecture 46: Fluid Pressure and its Measurement
Day: 32		**Lecture 47:** Archimedes Principle and Buoyancy
		Lecture 48: Bernoulli Equation
		Lecture 49: Applications of Bernoulli Equation
Day: 33		**Lecture 50:** Surface Tension
		Lecture 51: Stokes Law and Capillarity
		Lecture 52: Stokes Law and Poiseulli Formula
		Solve Assignment No. 12,13,14: Lect-45 to Lect-52
Day: 34		**Class Test 5: Lect-34 to Lect-44**
Day: 35		**Class Test 6: Lect-45 to Lect-52**