

COMEDK UGET Syllabus

COMEDK UGET Syllabus for Physics

<u>Topics</u>	<u>Chapter</u>
Thermal and Chemical Effects of Currents	<ul style="list-style-type: none"> • Heating Effects of Current • Electric Power • Simple Concept of Thermo-Electricity • Seebeck Effect and Thermocouple • Chemical Effect of Current Faraday's Laws of Electrolysis
Heat and Thermodynamics	<ul style="list-style-type: none"> • Thermal Expansion of Solids • Liquids and Gases and their Specific Heats • Relationship between Cp and Cv for Gases • First Law of Thermodynamics • Thermodynamic Processes • Second Law of Thermodynamics • Carnot Cycle Efficiency of Heat Engines
Oscillations	<ul style="list-style-type: none"> • Heating Effects of Current • Electric Power • Simple Concept of Thermo-Electricity • Seebeck Effect and Thermocouple • Chemical Effect of Current Faraday's Laws of Electrolysis
Motion in Two and Three Dimensions	<ul style="list-style-type: none"> • Scalars and Vectors • Vector Addition • Real Number • Zero Vector and its Properties • Resolution of Vectors • Scalar and Vector Products • Uniform Circular Motion and its Applications • Projection Motion
Electrostatics	<ul style="list-style-type: none"> • Electric Charge – its unit and conservation • Coulomb's Law • Dielectric Constant • Electric Field • Lines of Force • Field due to Dipole and its behaviour in a uniform electric field. • Electric Flux • Gauss's Theorem and its applications • Electric Potential, Potential due to a Point Charge. • Conductors and Inductors • Distribution of Charge on Conductors • Capacitance • Parallel Plate Capacitor • Combination of Capacitors • Energy of Capacitor
Motion in Two and Three Dimensions	<ul style="list-style-type: none"> • Scalars and Vectors • Vector Addition • Real Number • Zero Vector and its Properties

	<ul style="list-style-type: none">• Resolution of Vectors• Scalar and Vector Products• Uniform Circular Motion and its Applications• Projection Motion
Motion in One Dimension	<ul style="list-style-type: none">• Description of Motion in One Dimension Motion in a Straight Line• Uniform and Non Uniform Motion – Graphical Representation• Uniformly Accelerated Motion and its application.

