

# B R I E F C O N T E N T S

## V O L U M E 1

- 1** Measurement
- 2** Motion Along a Straight Line
- 3** Vectors
- 4** Motion in Two and Three Dimensions
- 5** Force and Motion—I
- 6** Force and Motion—II
- 7** Kinetic Energy and Work
- 8** Potential Energy and Conservation of Energy
- 9** Center of Mass and Linear Momentum
- 10** Rotation
- 11** Rolling, Torque, and Angular Momentum
- 12** Equilibrium and Elasticity
- 13** Gravitation
- 14** Fluids
- 15** Oscillations
- 16** Waves—I
- 17** Waves—II
- 18** Temperature, Heat, and the First Law of Thermodynamics
- 19** The Kinetic Theory of Gases
- 20** Entropy and the Second Law of Thermodynamics

## V O L U M E 2

- 21** Coulomb's Law
- 22** Electric Fields
- 23** Gauss' Law
- 24** Electric Potential
- 25** Capacitance
- 26** Current and Resistance
- 27** Circuits
- 28** Magnetic Fields
- 29** Magnetic Fields Due to Currents
- 30** Induction and Inductance
- 31** Electromagnetic Oscillations and Alternating Current
- 32** Maxwell's Equations; Magnetism of Matter
- 33** Electromagnetic Waves
- 34** Images
- 35** Interference
- 36** Diffraction
- 37** Relativity
- 38** Photons and Matter Waves
- 39** More About Matter Waves
- 40** All About Atoms
- 41** Conduction of Electricity in Solids
- 42** Nuclear Physics
- 43** Energy from the Nucleus
- 44** Quarks, Leptons, and the Big Bang