

ASTRONOMY

UNIT I

Relevant properties of a sphere & relevant formulae for spherical trigonometry (All without Proof) –Celestial sphere – Diurnal motion.

UNIT II

Earth – Dip of the horizon –Twilight – Astronomical refraction –Tangent & Cosine's Formula – Properties & simple problems applying them.

UNIT III

Kepler's Laws of Planetary motion (statement only) –Newton's deductions from them –Three anomalies of the Earth and relation between them – Time-Equation of time -Seasons

UNIT IV

Years and Calendar – Geocentric Parallax –Annual Parallax –Aberration of light – simple problems in the above.

UNIT V

Moon (except Moon's librations)-Motions of planet (assuming that orbits are circular - Eclipses .

TEXT BOOK(S)

- [1] S. Kumaravelu and Prof. Susheela Kumaravelu, Astronomy, SKV Publications, 2004.
UNIT – I -Chapters 1 & 2
UNIT – II -Chapter 3 Section 1, 2, 5, 6 & Chapter 4 Sections 117 to 120, 129, 130
UNIT – III-Chapter 6
UNIT –IV -Chapter 7 Section 1, 3, 4 & Chapter 8 Sections 190 to 193
UNIT – V -Chapter 12

REFERENCE(S)

- [1] V. Thiruvengkatacharya, A Text Book of Astronomy, S. Chand and Co., Pvt Ltd., 1972.