CHAPTER (1) INTRODUCTION TO WAVE MOTION

A brief history of light
One- dimensional waves
Harmonic waves
Phase & phase velocity
The complex representation
Plane waves
Dimensional differential wave equation
Spherical waves
Cylindrical waves
Scalar & Vector waves

CHAPTER (2) PHOTONS & LIGHT BASIC

Laws of electromagnetic theory
Electromagnetic waves Nonconducting media
Energy & Momentum
Radiation

CHAPTER (3) THE PROPAGATION OF LIGHT

Laws of reflection & refraction
Interaction of light & matter
Stockes treatment of reflection & refraction
Photons & laws of reflection & refraction
Particle & wave nature of light
Dual nature of light

CHAPTER (4) PARAXIAL THEORY & IMAGING
CHAPTER (5) COHERENCE THEORY

Visibility
Mutual coherence function & the degree of coherence
Coherence & Stellar interferometry

CHAPTER (6) SOME ASPECTS OF LIGHT