

M. Sc. GEOLOGY FOURTH SEMESTER

**Paper –III
403**

Photogeology & Remote Sensing

Code: Geol

UNIT – I

Fundamental principles and technology of aerial photography; types of aerial photographs; factors affecting aerial photography; types of camera, film and filters; scale of aerial photography and factors affecting scale; mosaics and annotation; relief displacement; vertical exaggeration.

UNIT – II

Methods of planimetric mapping through aerial photographs; fundamental principles of radial line triangulation methods; techniques of visual interpretation of aerial photographs; application of aerial photographs in geoscience and geomorphological studies.

UNIT – III

Fundamentals of remote sensing; remote sensing systems; space platforms and orbit patterns; remote sensing sensors; thermal, radar and hyperspectral images; signatures of rocks, minerals and soils.

UNIT – IV

Digital image processing; digital data formats; fundamental steps in image processing; image rectification and restoration; elements of pattern recognition and image classification.

UNIT – V

Introduction to Geographic Information System (GIS); components of GIS; product generation in GIS; tools for map analysis; integration of GIS with remote sensing.

