

M. Sc. GEOLOGY SECOND SEMESTER

Paper-I
Geol 201

Structural Geology

Code:

Unit- I

Primary sedimentary and igneous structures, Gravity related features and their usefulness in structural analyses. Unconformities and basement cover relationship. Principles of geological mapping, projection diagrams.

Unit-II

Stress, Strain, Stress-strain relationship of elastic, plastic and viscous materials. Mechanical behaviour of rocks. Measurement of strain in deformed rocks.

Unit-III

Folds: Geometry, classification, mechanism of folding. Superimposed folds: occurrence, recognition and geometric analyses. Time relationship between crystallization and deformations.

Unit-IV

Faults: Geometry, classification, mechanism of faulting. Shear zones, Shear sense indicators, shear zone kinematics. Role of fluids. Joints: Types, origin, relation of joints and fractures to strain field.

Unit-V

Cleavage: Types, origin, mechanics and relationship with folding. Lineation: Types, origin and deformation. Basic principles of structural analyses.