

## X. Faults

### A. Introduction:

1. Significance and importance of faults
2. Faults, fault zones, shear zones

### B. Map-scale features

#### 1. Geometry

*Strike, dip, footwall, hangingwall*

*Curved faults - listric, ramp, flat*

*Separation of layers*

#### 2. Slip

*Separation vs. slip*

*Net slip*

*Dip slip*

*Strike slip*

*Oblique slip*

#### 3. Variation in slip along faults

*Fault tip points and tip lines*

*Rotational movement, scissor faults, and transfer zones*

*Folds related to variation in slip*

#### 4. Effects of fault curvature

### C. Outcrop features of faults

#### 1. Slickenlines

*Striations*

*Mineral fibres*

#### 2. Fault rocks

*Breccia, Cataclasite and Gouge*

*Pseudotachylite*

*Note on the term 'mylonite'*

#### 3. Deformation of the wall rocks

*Riedel fractures*

*Folds associated with fault curvature*

*Folds associated with variation in slip*

*Folds associated with fault tips*

### D. Fault regimes

#### 1. Anderson's classification

- a) Gravity regime
- b) Thrust regime
- c) Wrench regime

#### 2. Rift zones and Normal faults

- a) Normal fault geometries
- b) Arrays of normal faults

#### 3. Reverse faults, thrust and fold belts

- a) Features of single thrust faults
- b) Folds

*Fault-bend folds*

*Detachment folds*

*Fault-propagation folds*

- c) Arrays of thrust faults

#### 4. Strike-slip faults

- a) Features of strike-slip faults
- b) Transtensional zones
- c) Transpressional zones