

# AMPE16 FIELD DEVELOPMENT GEOLOGY

## UNIT-1 STRUCTURAL ELEMENTS

- 1.1 Dip and Strata- True dip, Apparent dip, Strike,
- 1.2 Measurement of dip and strikes, important for Dip and Strike,
- 1.3 Out crops, Outcrops pattern, topography and Geological Structures,
- 1.4 Brunton compass, Clino meter, Global Positioning systems.

## UNIT-2 IDENTIFICATIONS OF ROCKS IN THE FIELDS

- 2.1 Techniques adopted- Fold, Faults,
- 2.2 Joints- definition, Types, Classifications do Geological Importance.

## UNIT-3 INTRODUCTION TO STRATIGRAPHY

- 3.1 Geological Time- Scale- Bio- Stratigraphy
- 3.2 Chrono Stratigraphy. Collection of samples,
- 3.3 Sedimentary basins, Lithological arrangements.

## UNIT-4 INTRODUCTION TO MICRO FOSSILS

- 4.1 Types of fossils- Importance of Micro fossils
- 4.2 Applications of Micro fossils in Hydrocarbon explorations.

## UNIT-5 INTRODUCTION TO REMOTE SENSING

- 5.1 Aerial Photographs- types of Aerial Photographs- Photo Interpretation elements
- 5.2 Satellite Images- Interpretation using satellite imageries
- 5.3 Applications of Remote Sensing in Hydrocarbon Explorations.

### References Books:

1. Krishnan, M.S., Geology of India and Burma Badgley, P.C., 1965,
2. Structure and tectonics, Harper and Row Billings, Structural Geology
3. Bhagawan Sahay - Petroleum Exploration and Exploitation Practices Miller, V.C., 1961, Photogeology., McGraw Hill.