

GEOLOGY

CODE-12

PAPER-I

Physical Geology and geomorphology :- Origin, structure interior and age of the Earth Geosynclines and Mountains. Isostasy, Origin of continents and oceans. Continental drift. Seismology. Volcanology, Geological action of surface agencies.

Structural and field geology :- Common structure of igneous, sedimentary and metamorphic rocks Study of folds, faults, unconformities, joints and thrusts, elementary ideas of methods of geological surveying and mapping.

Stratigraphy and Palaeontology :- Principles of Stratigraphy. Indian Stratigraphy. Lithological and Chronological sub-division of Geological record. Fossils nature and its mode of Preservation, bearing on organic evolution Invertebrate and plant fossils.

PAPER-II

Crystallography and mineralogy :- Elements of crystal forms and Symmetry, Laws of Crystallography. Crystal systems and classes, Crystal habits, Twinning. Stereographic projection. Physical, chemical and optical properties of minerals, study of more important rock-forming and economic minerals regarding their chemical, physical properties, crystallographic and optical characters, alteration, occurrence and commercial uses.

Economic Geology :- Theories of Ore Genesis - Classification, geology, occurrence, localities and resource of chief metallic and non-metallic minerals of India, minerals industries in India, principles of geophysical prospecting and redressing.

Petrology :- Origin constitution, structure and classification of igneous, sedimentary and metamorphic rocks. Study of common Indian rock types.