UNIT I - GENERAL GEOLOGY


UNIT II – STRATIGRAPHY

Principles of Stratigraphy - Correlation - Geological Time Scale - General characteristics, descriptive and economic importance of Archean, Cuddapah, Vindhyan and Gondwana systems of Peninsular India -Cretaceous system of Tamil Nadu.

UNIT III - STRUCTURAL GEOLOGY


UNIT IV - PALAEONTOLOGY

Fossils – Definitions, Conditions, mode of preservation, uses of Fossils – General morphology and classification of Graptolites, Mollusca, Coelenterata, Brachiopod, Trilobita, Echinoids and Foraminifera.

UNIT V – CRYSTALLOGRAPHY


UNIT VI - MINERALOGY


UNIT VII - IGNEOUS PETROLOGY

Definition of magma - Composition and constitution of magma - Forms and structures of Igneous Rocks, Textures and Micro structures - classification of Igneous rocks - Bowen's Reaction principle - Descriptive Study of Granite - Syenite - Diorite - Gabbro – Dolerite - Ultramafics (Dunite,Peridotite, Pyroxenite and Anorthosite) - Differentiation - Assimilation.
UNIT VIII - SEDIMENTARY AND METAMORPHIC PETROLOGY


UNIT IX - ENONIMIC GEOLOGY I


UNIT X - APPLIED GEOLLOGY

Principles of Geological mapping - Field Techniques - Drilling methods - Borehole problems from borehole data – Geological investigation and conditions for dams, tunnels and roads - Landslides – Mining methods, role of geology - problems in mines including groundwater – Application of Remote sensing in Geology.