

Geology

DEGREE STANDARD

UNIT I

GENERAL GEOLOGY:-

Weathering: Types and Products - Geological work of wind, River, Groundwater, Glacier and Lakes - Origin, Interior and Age of the Earth.

UNIT II

STRUCTURAL GEOLOGY:-

Forms of Igneous rocks - Primary structures of Sedimentary rocks - Types of folds - types of faults - Types of unconformity - Clinometer compass and its uses.

UNIT III

STRATIGRAPHY:-

Principles of Stratigraphy - Correlation - Geological Time scale - General characteristics and descriptive study of the Archaean, Cuddapah, Vindhyan and Gondwana systems of Peninsular India - Cretaceous system of Tamil Nadu.

UNIT IV

PALEONTOLOGY:-

Modes of preservation of fossils - Uses of fossils - Morphological characters of the following groups:- Lamellibrachia, Gasteropods, Cephalopods, Brachiopods and Trilobites.

UNIT V

CRYSTALLOGRAPHY:-

Definition of Crystal - Faces - Forms - Interfacial angle - Symmetry - crystallographic axes - Laws of crystallography - Study of the Normal classes of six systems.

UNIT VI

MINERALOGY:-

Petrological microscope, parts, accessories and uses - Physical properties of minerals - Descriptive study of the following:- Quartz and its varieties, Feldspar, Pyroxene, Amphibole, Mica, Garnet - Andalusite, Kyanite, Sillimanite.

UNIT VII

IGNEOUS PETROLOGY:-

Textures and Microstructures of Igneous rocks - Classification Bowen's reaction principle - Descriptive study of the following:- Granite, Syenite, Diorite, Gabbro and Ultramafies - Differentiation and Assimilation.

UNIT VIII

SEDIMENTARY AND METAMORPHIC PETROLOGY:-

Classification of Sedimentary rocks - Descriptive study of Residual, Clastic and Organic deposits. Agents and kinds of metamorphism - Study of Greenschists, Amphibolites and Charnockites.

UNIT IX

ECONOMIC GEOLOGY -I :-

Definition of Ore, Tenor, Gangue - Bateman's classification of Ore deposits - Study of the following processes:- Magmatic concentration, Hydrothermal, Evaporation, Placer Deposits and Oxidation and Supergene Enrichment - Origin and Occurrence of Coal and petroleum in India.

UNIT X

ECONOMIC GEOLOGY - II:-

Study of properties, mode of occurrence, Uses and Distribution in India of the following:- Gold, Iron, Aluminium and Copper. - Descriptive study and uses of the following:- Magnesite, Clay, Calcite and Phosphatic nodules.

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