

SYLLABUS FOR TAMILNADU COMMON ENTRANCE TEST (TANCET)

PART – III

13. EARTH SCIENCES

Physical Geology and Geomorphology: Weathering process, kinds, products. Internal structure of the earth, fundamentals of plate tectonics. Landforms produced by River, winds, glacier and sea. Drainage pattern, Drainage Index, geomorphic features.

Mineralogy, Petrology, Stratigraphy, Paleontology and Structural Geology: Physical properties of Industrial minerals classification, origin and description of Igneous, sedimentary and Metamorphic rocks. Origin of Himalayas major earth geological events through time scale. Origin of life, types of fossils evolution of mammals & Man. Joints, Folds, Faults and structures.

Economic Geology, Ore Geology, Geochemistry : Origin, occurrence and distribution of Economic mineral deposits-Iron, manganese, gold, zinc, graphite, lead, coal and petroleum deposits. Ore-dressing, ore-reserves, estimation. Major elements, application in environmental studies REE-its implication in genesis/ provenance of rocks.

Remote Sensing, Geophysics and Hydrogeology : Sensors & Platforms- Indian Remote Sensing – Spectral system characterizes of rocks & minerals – Photogeology – Photogrametry - Hydrogeology – Groundwater – occurrence, movement, Aquifer, field parameters & Lab methods of estimations.

Engineering Geology, Environment Geology and Marine Geology: Engineering properties of Rock. Geological investigation required for Dam, Tunnel, highways and building constructions. Renewable and non-renewable resources, pollution. Continental and marine environmental studies. Ocean features, physical, chemical & biological resources of the ocean.