ENGINEERING GEOLOGY LABORATORY

Practicals : 3 Periods/Week Sessional Marks: 40

Semester Exam.: 3 Hrs. Semester End Exam. Marks : 60

Credits : 2

Course Objectives:

1 Develops the ability to understand the importance of geology in civil engineering
2 Develops the ability to identifying the various rock forming group of minerals and rocks and analyze the attitude of rock formations.
3 Develops the knowledge in interpreting the topographic geological maps and satellite Imageries.

Course outcomes:

1. Students able to understand the importance of geology in civil engineering
2. Students will be familiar with identifying the geological process of the region related to the civil engineering works
3. Students are able to evaluate the formation and properties of the minerals, rocks and soil
4. Develops the ability to prepare the geological section and maps and interpret the site conditions

Note: A minimum of twelve (12No) shall be done and recorded:

1 Study of Survey of India Topographical Maps
2. Study of Satellite Imageries through appraisal cards
3. Study of Physical Properties and identification Minerals (2 experiments)
I. Silicate minerals
ii. Non silicate minerals
4. Megascopic description and identification of Rocks (3 experiments)
I. Igneous rocks
ii. Sedimentary rocks
iii. Metamorphic rocks
5. Joint Data Analysis
6. Simple Structural geology Problems
7. Study of Geological Maps and their Cross-section
8. Electrical Resistivity Method (demo)
9. Seismic Hammer Sounding Method (demo)
10. Study of Structural Models
11. Study of Tunnel Models.

WEB REFERENCES:

- NPTEL COURSE- Developed by Prof. Debasis Roy, IIT, Kharagpur - 721302
- http://web.mst.edu/~rogersda/umrcourses/ge341/