[01 – 2115]

II/IV B.E. DEGREE EXAMINATION.

First Semester

Civil Engineering

ENGINEERING GEOLOGY

(Common for Civil Environmental Engineering and M.S. Civil Engineering)

(w.e.f. admitted batch of 2006-2007)

Time : Three hours Maximum : 70 marks

Answer any FIVE questions choosing one from each unit.

All questions carry equal marks.

UNIT I

1. What is a land form? Describe land forms produced by running water and wind.

2. Define ground water table, porosity and permeability. Explain water bearing properties of rocks.

UNIT II

3. (a) Explain the importance of Engineering properties of rocks to be tested for Civil Engineering Construction.

   (b) Explain the common structures and textures of the igneous rocks

4. (a) Explain the physical properties of minerals. Explain how these relevant to Civil Engineering practices.

   (b) Enumerate the characteristics of amphiboles and silicates.

UNIT III

5. Define the term "Facult". Outline the practical significance of faults in Civil Engineering projects.

6. Explain the major geological formations of India with their typical features.

UNIT IV

7. What is difference between seismic reflection and seismic refraction method? How do you carry out seismic refraction method for bed rock condition at any Civil Engineering Construction?

8. State the principles of GIS and RS and their applications in Civil Engineering practices.

UNIT V

9. (a) Explain the geological and engineering problems encountered in tunneling through hard rocks. Give an account of the remedial measures adopted in these terrains.

   (b) Explain the geological investigation for dams and reservoirs.

10. Write short notes on :

   (a) Role of geologist in Civil Engineering.

   (b) Geological investigations for bridges.