

**K 038**

B.E./B.Tech. DEGREE EXAMINATIONS,  
NOVEMBER/DECEMBER 2010.

THIRD SEMESTER

CIVIL ENGINEERING

AG 33 — APPLIED GEOLOGY  
(REGULATIONS 2008)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. What are the layers in the interior of earth?
2. Define "Aquifer". *4/30*
3. What is axis of symmetry?
4. Write the uses of clay minerals.
5. Name any two types of metamorphism.
6. Explain 'Graded bedding'.
7. What is Normal Fault? *15*
8. Name the device used in electrical survey.



9. Define "Slump".

10. What is remote sensing?

PART B — (5 × 16 = 80 marks)

11. (a) Write an essay on the geology of ground water, its occurrence and prospecting.

Or

(b) Describe the types of weathering in detail.

12. (a) Write in detail the axial relation, symmetry elements and forms present in the Normal class of Tetragonal system.

Or

(b) Explain in detail the various physical properties of the minerals.

13. (a) Describe various criteria used for distinguishing igneous sedimentary and metamorphic rocks.

Or

(b) Write the description uses and engineering properties of the following rocks.

(i) Granite

(ii) Basalt

(iii) Conglomerate

(iv) Gneiss.

K 038

2

14. (a) What are folds? How are they classified? And write its engineering importance.

Or

(b) Describe in detail the seismic method used in civil engineering investigation.

15. (a) Write in detail the geological condition necessary for the construction of dams.

Or

(b) Describe various types of landslide, its causes and prevention.

K 038

3