

Code: 9A01505

R9

B.Tech III Year I Semester (R09) Supplementary Examinations, May 2013

ENGINEERING GEOLOGY

(Civil Engineering)

Time: 3 hours

Max Marks: 70

Answer any FIVE questions
All questions carry equal marks

- 1 What is weathering of rocks? Give the effects of weathering on rocks. Add a note on the engineering importance of weathering.
- 2 Define mineral. What are the essential requirements of a mineral? Also explain mode of formation of minerals.
- 3 What is meant by metamorphism? How are metamorphic rocks formed?
- 4 Describe with neat sketches different types of joints. Add a note on their importance in quarrying and groundwater exploration.
- 5 Give an account of the following with neat explanatory sketches.
 - (a) Stable and unstable slopes.
 - (b) Stability of rock slopes and cuttings in rocks.
- 6 What is meant by geothermal methods? Discuss the principle, equipment used and field applications of geothermal methods.
- 7 Explain:
 - (a) Influence of faults in dam and reservoir sites.
 - (b) Influence of buried valleys in dam and reservoir sites.
- 8 Describe the:
 - (a) Effect of undisturbed strata at the tunnel site.
 - (b) Necessity of lining in tunnels.
 - (c) Suitability of different rock types at the tunnel site.
