

IV B.Tech I Semester Supplementary Examinations, November 2005
ENGINEERING GEOLOGY
(Civil Engineering)

Time: 3 hours

Max Marks: 80

Answer any FIVE Questions
All Questions carry equal marks

1. "The knowledge of geology is very essential at planning stage, design stage and construction stage of any Civil Engineering project". Justify this statement with a reference to a Dom site selection. [16]
2. (a) Write short notes on the following:
 - i. Isomorphism and Pseudomorphism. [2+2]
 - ii. Effect of Weathering on physical properties of minerals. [4]
 (b) What are undesirable minerals from CIVIL Engineering point of view, why? [8]
3. Describe the common structures/textures found in metamorphic rocks. Draw simple sketches. [16]
4. Compare and contrast the following pairs:
 - (a) Lava and Magma
 - (b) Sills and Dykes
 - (c) Plutonic and Volcanic rocks. [5 $\frac{1}{3}$ x 3 = 16]
5. Describe the following briefly with neat sketches.
 - (a) Plunging folds.
 - (b) Enechelon faults.
 - (c) Sheet joints.
 - (d) Non conformity. [4 x 4 = 16]
6. Describe the Lithology, distribution and succession structure and economic importance of the **Cuddapah** basin. [16]
7. Describe with a neat sketch the different types of sub-surface water? Briefly explain the terms 'Drawdown' and 'Cone of depression'. [8+4+4]
8. Write Short Notes on :
 - (a) Different purposes of tunnels
 - (b) Tunnels faulted strata
 - (c) Tunnels in folded strata. [5 $\frac{1}{3}$ x 3 = 16]
