

R7

Code: R7310106

B.Tech III Year I Semester (R07) Supplementary Examinations, May 2012

ENGINEERING GEOLOGY

(Civil Engineering)

Time: 3 hours

Max Marks: 80

Answer any FIVE questions

All questions carry equal marks

- 1 Explain in brief the four case histories of civil engineering constructions failed due to geological aspects.
- 2 Define a mineral, a rock and an ore. Explain the important physical properties of minerals that are commonly studied for their identification.
- 3 Describe the geological classification of rocks into three types with suitable examples.
- 4 Describe with the help of neat sketches various parts of faults as understood in structural geology. Explain briefly the accepted causes of faulting of rocks.
- 5 Define earthquakes and tsunamis. What are the effects of earthquakes? What are the precautionary measures taken in the construction of buildings in earthquake prone zones?
- 6 Give a comparative account of electrical and seismic methods of investigations for geological details of an area. Which method would you apply for:
 - (a) Selecting a site for a reservoir.
 - (b) Selecting a site for a dam.
- 7 Describe the salient features of a: (i) Gravity dam (ii) Arch dam (iii) Earth dam. Give suitable examples.
- 8 (a) Give an account of types of "Tunnels" and their usefulness and need.
(b) What are the general geological characteristics of the area that must be known before a tunnel project is decided in that area.
