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# B. Tech. Degree IV Semester Special Supplementary Examination September 2014

# CE 1404 (A/B) ENGINEERING GEOLOGY AND SEISMOLOGY

(2012 Scheme)

Time: 3 Hours

Maximum Marks: 100

### PART A

(Answer ALL questions)

 $(8 \times 5 = 40)$ 

- I. (a) Describe scope of geology in civil engineering profession.
  - (b) Write a short note on drainage pattern.
  - (c) Explain colour of a mineral, its types and associated phenomena.
  - (d) Briefly describe the structure of igneous rocks.
  - (e) Explain dip and strike.
  - (f) Briefly explain the electrical methods of subsurface investigation.
  - (g) Give a brief account of internal constitution of earth.
  - (h) Discuss the distribution of earthquakes.



## PART B

 $(4 \times 15 = 60)$ 

II. Give an account of the major geological features due to deposition by wind. Briefly account the engineering considerations of these deposits.

#### OR

- III. Give an account of marine erosion, deposition and shore control problems.
- IV. Write chemical composition, physical properties and uses of the following minerals.
  - (i) Quartz
  - (ii) Muscovite
  - (iii) Garnet

#### OR

- V. Discuss the various engineering properties of rocks. Also give an example of properties of sandstone.
- VI. Explain the classification of faults. Write a note on their recognition in the field.

#### OR

- VII. How landslides are caused? Give the classification of landslides. How are the landslides controlled.
- VIII. Describe the classes, causes and effect of earthquakes.

#### OR

IX. Explain in detail tsunami and tsunami velocity.