

C 15213

Name:

Reg. No.



**FOURTH SEMESTER B.TECH. (ENGINEERING) DEGREE
EXAMINATION, DECEMBER 2010**

CE 04 406—ENGINEERING GEOLOGY

(2004 admissions)

Time : Three Hours

Maximum : 100 Marks

Answer all questions.

Draw neat sketches wherever necessary.

1. (a) Explain the causes of volcanism.
- (b) Give an account of liquefaction.
- (c) Write notes on feldspar group of minerals.
- (d) Explain the mineralogy and textures of granites.
- (e) Comment on the engineering significance of joints.
- (f) What is meant by “artificial recharge” ? What are the methods of artificial recharge ?
- (g) Explain the salient features of electromagnetic spectrum.
- (h) How the knowledge of geology is beneficial in construction of roads ?

(8 × 5 = 40 marks)

2. (a) Define Weathering. What are the factors of weathering ? Give an account of the types of weathering. Add a note on the products of weathering.

Or

- (b) Describe the types, causes and control measures of landslides.

3. (a) With suitable examples explain any *five* physical properties of minerals.

Or

- (b) Explain the engineering properties of rocks used as construction materials.

4. (a) What are faults ? Give the classification schemes of faults.

Or

- (b) Explain the electrical resistivity and seismic refraction methods of groundwater exploration.

5. (a) Write an essay on geographic information systems.

Or

- (b) Explain the role of Geology in dam construction.

[4 × 15 = 60 marks]