Reg. No. : | | | | | | | | | | | | |

Question Paper Code : 77050

B.E./B.Tech. DEGREE EXAMINATION, APRIL/MAY 2015.

Third Semester

Civil Engineering

CE 6301 — ENGINEERING GEOLOGY

(Regulation 2013)

Time : Three hours Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. What is spheroidal weathering?
2. Draw the internal structure of the Earth.
3. Write the important minerals from Feldspar group and their uses.
4. List the names of clay group of minerals.
5. Define crushing strength of a rock.
6. Write short note on the importance of texture and structure of a building stone.
7. What are Joints and Joint sets?
8. Define the term 'Rock Quality Designation' (RQD).
9. Write the factors that cause landslides.
10. What are aerial photo interpretation elements?

PART B — (5 × 16 = 80 marks)

11. (a) Write elaborately on Physical and chemical weathering of rocks. What is the significance of weathering of rocks in Civil Engineering?

Or

(b) Describe the geological work of sea and its engineering considerations.

12. (a) Describe the physical properties of common rock forming minerals.

Or

(b) Explain in detail about the Pyroxene group of minerals.

13. (a) (i) Write elaborately on textural classification of Igneous rocks.

(ii) Write notes on engineering importance of Igneous rocks.

Or

(b) Explain the characteristics and engineering properties of Granite, Sandstone, Marble and Dolerite.

14. (a) What are faults? Explain in detail with sketches on (i) Normal faults (ii) Reverse faults (iii) Strike slip fault (iv) Oblique fault.

Or

(b) Explain in detail about Resistivity methods and Wenner configuration. Add a note on its Civil Engineering applications.

15. (a) Illustrate with neat sketches about landslides and their types. What are the various measures to control landslides?

Or

(b) Explain how remote sensing is done? Discuss in detail on remote sensing applications in Civil Engineering.
