ANNA UNIVERSITY OF TECHNOLOGY, COIMBATORE

B.E. / B.TECH. DEGREE EXAMINATIONS : NOV / DEC 2011

REGULATIONS : 2008

THIRD SEMESTER - CIVIL ENGINEERING

080100009 - APPLIED GEOLOGY

Time : 3 Hours   Max.Marks : 100

PART - A

(10 x 2 = 20 MARKS)

ANSWER ALL QUESTIONS

1. Describe the interior of the earth.
2. List and describe two coastal protection structures.
3. Write the mohrs scale of hardness.
4. What are symmetry elements of monoclinic system of crystallization?
5. List the properties and uses of calcite.
6. Explain the mural and sheet joint structures.
7. What are joints?
8. Explain dip and strike of rocks.
9. What is meant by the terms parallax and overlap?
10. What are the various types of aerial photographs?

PART - B

(5 x 16 = 80 MARKS)

ANSWER ALL QUESTIONS

11. (a) Write an essay on weathering of rocks and its importance in engineering construction

(OR)

(b) Give a detailed account of the earthquake belt in India

12. (a) Describe the physical properties of minerals with examples

(OR)

(b) Give a detailed account of the physical properties and classification of coal

13. (a) Write about the mineralogical composition, structure and texture, engineering properties and uses of dolerite, basalt, sandstone and limestone

(OR)

(b) Explain the classifications and uses of sedimentary rocks with examples.

14. (a) What is meant by folds and faults? Discuss about their role in the design and construction of large engineering structures.

(OR)

(b) Explain in detail, the electrical resistivity method of sub-surface investigation for civil engineering investigation.

15. (a) Give a detailed account of the geological considerations necessary for the construction of tunnels

(OR)

(b) What are landslides? Describe the types of landslides with a sketch and enumerate the geological investigations required for mitigation of landslides.

*****THE END*****