Reg. No. :

Question Paper Code: 31013

B.E. / B.Tech. DEGREE EXAMINATION, OCTOBER 2014.

Third Semester

Civil Engineering

01UCE303 - ENGINEERING GEOLOGY

(Regulation 2013)

Duration: Three hours   Maximum: 100 Marks

Answer ALL Questions.

PART A - (10 x 2 = 20 Marks)

1. What is an 'exfoliation' weathering?

2. What are the movements of the oceans?

3. How are minerals identified?

4. What are clay minerals?

5. Differentiate: plutonic igneous rocks and volcanic igneous rocks.

6. What do you understand by metamorphism?

7. What is meant by dip in rock?

8. Distinguish between anticline and syncline fold.

9. State the different types of remote sensing platforms.

10. What is meant by 'over break' with respect to a tunnel?

PART - B (5 x 16 = 80 Marks)

11. (a) (i) Discuss the importance of geology in the field of civil engineering projects. (10)

(ii) Discuss about physical and chemical weathering. (6)

Or

(b) Discuss in detail about the geological work and land forms formed by river. (16)

12. (a) Discuss the various physical properties of minerals with suitable examples. (16)

Or

(b) Write the physical properties and composition of the following minerals

(i) Rock crystal
(ii) Augite
(iii) Orthoclase. (16)

13. (a) How will you differentiate the three groups of rocks in the field? (16)

Or

(b) Discuss the different structures of sedimentary rocks. (16)

14. (a) Explain with sketches the various types of folds and write a note on their importance in major civil engineering projects. (16)

Or

(b) Discuss about the electrical resisitvity method and its applications in civil engineering field. (16)

15. (a) (i) Explain the principles of remote sensing techniques. (10)

(ii) Discuss the applications of remote sensing data in civil engineering. (6)

Or

(b) Discuss the factors which are influencing landslides and suggest remedial measures. (16)

_____

31013