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**Question Paper Code: 33103**

B.E. / B.Tech. DEGREE EXAMINATION, NOV 2018

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. Define Hypabyssal rock.
6. Write the types of metamorphism.
7. State the uses of geological maps.
8. Mention the parts of a fault.
9. What are the engineering properties to be studied for a dam site?
10. What are the geological characters to be considered for bridge construction.

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) Describe the mode of formation, classification and structures of sedimentary rocks. (16)

Or

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

14. (a) Discuss the different types of folds. (16)

Or

- (b) Describe electrical resistivity method and seismic method of geological investigations. (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)