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**Question Paper Code: 33103**

B.E. / B.Tech. DEGREE EXAMINATION, MAY 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. Name the types of seismic waves.
3. List out the mineral formation process.
4. What are clay minerals?
5. What are Plutonic rocks?
6. Write the types of metamorphism.
7. What is meant by dip in rock?
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) (i) Describe the continental drift with suitable examples. (8)  
(ii) Write short notes on earth quake and seismic zones in India. (8)

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

Or

- (b) Describe the classification and physical properties of quartz family. (16)

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

Or

- (b) Bring out any six salient characteristics between Igneous, sedimentary and Metamorphic rocks. (16)

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

Or

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

15. (a) What are landslides? Give a detailed account on the types, causes, geological investigations and remedial measures for landslides. (16)

Or

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