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Question Paper Code: 33103

B.E. / B.Tech. DEGREE EXAMINATION, NOV 2019

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. Distinguish between wave and current?
3. How are minerals identified?
4. List out the places of Indian occurrences of coal.
5. Define Hypabyssal rock.
6. Write the types of metamorphism.
7. Differentiate strike and dip.
8. What are folds?
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) Describe the classification and physical properties of quartz family. (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) How will you differentiate the three groups of rocks in the field. (16)

14. (a) What is a fold? Describe the various classifications of fold with neat sketch. (16)

Or

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

15. (a) Discuss about the landslide, its cause and preventive measures in detail. (16)

Or

- (b) Discuss the geological conditions essential for tunnel construction. (16)