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**Question Paper Code: 31013**

B.E. / B.Tech. DEGREE EXAMINATION, APRIL 2015.

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. List out the branches of geology.
2. List out the zones into which India is divided based on earthquake occurrences.
3. Differentiate 'colour' and 'streak' of a mineral.
4. List out the mineral formation process.
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) Discuss the landforms produced by erosion and deposition of rivers. (16)

Or

(b) Explain the concept of plate tectonics and describe its relation to seismicity. (16)

12. (a) Describe the classification and physical properties of quartz family. (16)

Or

(b) Discuss about physical properties of minerals. (16)

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

Or

(b) Write the engineering properties of granite, limestone, marble and gabbro. (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) Write in detail about types of landslides and their causes. List the various measures of preventing landslides. (16)

Or

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

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