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Question Paper Code: 31313

B.E. / B.Tech. DEGREE EXAMINATION, MAY 2016

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. Define the term “Weathering of Rocks”?
2. Distinguish between wave and current?
3. Write the composition and uses of Calcite?
4. List out the places of Indian occurrences of coal.
5. What are Plutonic rocks?
6. What are the agents of Metamorphism?
7. What is an OUTCROP?
8. What is a Fault? Comment on its significance.
9. What is meant by Coastal erosion?
10. Define remote sensing?

PART - B (5 x 16 = 80 Marks)

11. (a) Briefly explain the various erosional features of river with neat sketch. (16)

Or

(b) Explain in detail about weathering of rocks and the products of weathering. (16)

12. (a) Describe the physical properties of minerals that help in their identification in the field along with suitable examples. (16)

Or

(b) Elaborate on the composition, physical properties and mode of origin and uses of

(i) Quartz and its varieties

(ii) Mica and its varieties (16)

13. (a) Bring out any six salient characteristics between Igneous, sedimentary and Metamorphic rocks? (16)

Or

(b) Write the mineralogical composition, engineering properties and uses of

(i) Basalt (4)

(ii) Sandstone (4)

(iii) Shale (4)

(iv) Gneiss (4)

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

Or

(b) Explain in detail, the electrical resistivity method of subsurface investigation. (16)

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

Or

(b) Explain the geological considerations necessary for the construction of tunnel in hard and soft rock terrains. (16)