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Question Paper Code: 31313

B.E. / B.Tech. DEGREE EXAMINATION, NOVEMBER 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. Define mantle of the earth.
2. Name the types of seismic waves.
3. Write the symmetry elements of a crystal.
4. List the Moh's scale according to ascending order of mineral hardness.
5. Give any two important differences between sedimentary and igneous rocks.
6. What do you mean by metamorphism?
7. Differentiate strike and dip.
8. What are folds?
9. State the geological characteristics required for construction of a tunnel structure.
10. Define remote sensing.

PART - B (5 x 16 = 80 Marks)

11. (a) Explain in detail about structure and composition of earth with neat sketch. (16)

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) Write the physical properties of chalcedony, muscovite and garnet. (16)

Or

(b) Discuss about the physical properties of minerals with suitable example. (16)

13. (a) Describe in detail the distinguishing features of igneous, sedimentary and metamorphic rocks. (16)

Or

(b) Explain the following (i) Basalt (ii) Conglomerate (iii) Slate. (16)

14. (a) Explain the parts of a fold and describe the important types of fold with neat diagrams. (16)

Or

(b) Describe geophysical exploration by electrical resistivity method. (16)

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

Or

(b) Explain the principles of remote sensing technique and its applications in civil engineering site investigation. (16)