

Reg. No. :

--	--	--	--	--	--	--	--	--	--

Question Paper Code: 33103

B.E. / B.Tech. DEGREE EXAMINATION, APRIL 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. 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. 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) Discuss the landforms produced by erosion and deposition of rivers. (16)

Or

(b) Discuss in detail about the geological work and land forms formed by river. (16)

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

Or

(b) Write the physical properties and composition of the following minerals

(i) Rock crystal

(ii) Augite

(iii) Orthoclase. (16)

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

Or

(b) Discuss the different structures of sedimentary 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) (i) Explain the principles of remote sensing techniques. (10)

(ii) Discuss the applications of remote sensing data in civil engineering. (6)

Or

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