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Reg. No.:

Question Paper Code : X10236

B.E./B.Tech. DEGREE EXAMINATIONS. NOVEMBER/DECEMBER 2020 Third / Fifth Semester **Civil Engineering** CE 8392 – ENGINEERING GEOLOGY (Regulations 2017)

Time : Three Hours

Maximum: 100 Marks

Answer ALL questions

PART - A

(10×2=20 Marks)

- 1. Mention some useful effects of weathering.
- 2. Sketch the layers of the interior of the Earth.
- 3. Define Lusture of minerals.
- 4. Write note on Moh's scale of mineral hardness.
- 5. Distinguish between igneous and sedimentary rocks.
- 6. Write note on properties of rocks used for road metaling.
- 7. Define Strike direction and Dip direction.
- 8. Write the electrical Resistivity values of some rocks.
- 9. Explain Gravity Dam.
- 10. What is meant by False Colour Composite (FCC)?

PART - B

(5×13=65 Marks)

11. a) Briefly explain the role of geology in civil engineering.

(OR)

b) Define Seismograph. Mention some location where seismic instruments installed in India. Explain about the Seismic Zones of India.

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12. a) Describe the physical properties of Feldspar group and Mica group of minerals.

(OR)

- b) Write about the physical properties of
 - a) Hypersthene, Augite b) Quartz, Hornblende
- 13. a) Brief notes on following igneous rocks.

a) Granite b) Dolerite

(OR)

- b) Describe the geological occurrence, economic uses and engineering significance of the Sandstone.
- 14. a) Explain the basic component of seismic instruments and their working procedure.

(OR)

- b) Define fold and its parts, how it is classified and explain the civil engineering consideration of fold.
- 15. a) Discuss the necessary geological conditions for successful Tunneling.

(OR)

b) Define landslides, discuss the causes of landslides, give an example for remedial taken to mitigate landslides.

PART – C (1×15=15 Marks)

16. a) Briefly explain the different engineering property test for rocks.

(OR)

b) Mention the standard guidelines considered for construction of major dams and reservoirs.