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**Question Paper Code : 25050**

B.E./B.Tech. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2018.

Third 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. Write about the interior of the earth.
2. List four land forms associated with the coast.
3. List the physical properties of clay minerals.
4. Write about the physical properties of Quartz group of minerals.
5. Give the engineering properties of Marble.
6. How do you distinguish between igneous and sedimentary rocks?
7. Write short notes on the dip of beds.
8. Distinguish between geological map and topographic map.
9. Discuss the various coastal protection structures.
10. Explain briefly the role of Remote Sensing in Highway alignment.

PART B — (5 × 13 = 65 marks)

11. (a) Explain the types of physical and chemical weathering of rocks.

Or

- (b) Describe how the Earthquakes occur? Add a note on seismic zones in India.

12. (a) Give a detailed account on the physical properties of Pyroxene group of minerals.

Or

- (b) Enumerate the physical properties of Feldspar and mica group of minerals.

13. (a) Write an essay on the classification of rocks and their engineering properties and uses.

Or

- (b) Describe the engineering properties, distribution and uses of Granite and Laterites.

14. (a) Explain the various types of Folds and Faults and their control on engineering structures.

Or

- (b) Describe in detail the seismic methods for subsurface investigations.

15. (a) Discuss in detail on the causes and mitigation of Landslides.

Or

- (b) Write an essay on the geological and geophysical methods for subsurface investigations.

PART C — (1 × 15 = 15 marks)

16. (a) Discuss in detail on the geological conditions required for the design and construction of Dams, Reservoirs and Tunnels.

Or

- (b) Write an essay and critically discuss the formations of various landforms by river and wind.