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B. E/ B. Tech. (Full Time) DEGREE END SEMESTER EXAMINATION, NOV/DEC 2012

CIVIL ENGINEERING BRANCH

THIRD SEMESTER

AG 9211-ENGINEERING GEOLOGY

(REGULATIONS 2008)

3

Duration: 3 hr

Max Mark: 100

Answer ALL Questions

Part A- (10 x 2 = 20 Marks)

1. Draw the internal structure of Earth.
2. What are dunes? Give their types.
3. Write Mohs' Scale of Hardness.
4. Give at least two uses of Feldspars.
5. What are plutonic igneous rocks? Give examples.
6. Define metamorphic grade
7. Distinguish Anticline and syncline folds.
8. What is an isoseismal map?
9. Define Mass wasting?
10. List the names of Indian Remote Sensing satellites.

Part B-(5 x 16 = 80 Marks)

11. Draw neat sketch of soil profile. Explain in detail on the physical and chemical weathering processes of rocks.
12. (a). Describe silicate structures. Write the common physical properties of feldspar group of minerals.
(Or)
(b). Explain the physical properties of Amphibole and Pyroxene groups of minerals.
13. (a). Write elaborately on various engineering properties required for building stones.
(Or)
(b). Draw a neat sketch of 'Rock Cycle'. Explain various classifications of igneous rocks.
14. (a). Define and classify Faults and Joints. What are their engineering significances?
(Or)
(b). What are the geophysical methods used for sub-surface investigation? Explain the electrical resistivity method and its application.
15. (a). Explain the types of dams with neat sketches. Give the geological characters necessary for dam construction.
(Or)
(b). Explain the geological conditions necessary for design and construction of Tunnels.