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**B.E/B.Tech. (Full Time) DEGREE AND SEMESTER EXAMINATIONS, NOV/DEC 2012**  
**GEO-INFORMATICS BRANCH**  
**V SEMESTER - (Regulation 2008)**

**GI 9029 – RS & GIS FOR EARTH SCIENCES**

Time : 3 hr

Max. Mark: 100

Instructions: Give neat Sketches wherever necessary

**Answer ALL questions**

**Part – A (10 x 2 = 20 Marks)**

1. What are the photocharacteristics of shale and sandstone in humid and arid climate?
2. Explain the photocharacteristics of intrusive Granites?
3. What is Drainage Density. How is it useful to differentiate the Lithology?
4. What is bifurcation ratio.
5. Distinguish between Laccolith, sill and Dyke.
6. Explain Horst and Graben structures.
7. What are exfoliation domes?
8. Distinguish between dip slip fault and strike slip fault.
9. Distinguish between Aquifer and Aquiclude.
10. Write the formulae for calculating the apparent Resistivity of a formation.

**Part – B (5 x 16 = 80 Marks)**

11. Write an account of the role of Remote Sensing and GIS in Disaster Management.
- 12.a) Enumerate the different criteria for recognition of Faults using Satellite / Aerial Data.

(or)

- b) Write a brief note on the Genetic classification of Joints/ Fractures and its significance with reference to groundwater.
- 13.a) Explain fluvial Landforms and their photocharacteristics. Add a note on their ground water conditions.

(or)

- b) Write a brief note on the Aeolian Landforms and its photo characteristics.

14.a) Explain briefly with a flow chart, steps involved in the preparation of Ground water prospects maps in a hard rock domain.

(or)

b) Write a note on the Remote Sensing and GIS applications in Mineral Exploration.

15.a) Describe how RS & GIS will help to plan the Geophysical Survey programmes for Ground water exploration

(or)

b) Explain the Surficial features identified on the Satellite / Aerial data for evaluating the Ground water conditions.