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**B.E./ B Tech ( Full Time) END SEMESTER EXAMINATIONS NOV/ DEC 2011**

**GEO INFORMATICS ENGINEERING BRANCH  
FIFTH SEMESTER**

**GI- 9029– REMOTE SENSING AND GIS FOR EARTH SCIENCES  
(REGULATIONS 2008)**

**Time: 3hrs**

**Max Marks: 100**

**Instructions:** 1. Draw neat sketches wherever necessary.

**Answer ALL Questions  
Part – A (10 x 2 = 20 Marks)**

1. Describe the difference between Mineral and rock.
2. What is the drainage density? How it is useful to differentiate the lithology?
3. Define Paleo channels and the criteria to recognize these features
4. Write brief notes on the Photo Characteristics of Granite and associated rocks.
5. Describe between Dip slip fault and Strike slip fault.
6. Describe between Host and Graben Structures
7. Describe denudation Landforms and the significance in shapping the earth.
8. How can moving water contribute to Erosion?
9. What is the Landslide? How the Satellite / Aerial Photo data is useful?
10. Basic Principles of Sesimic survey to differentiate the subsurface lithology.

**Part - B (5 x 16 = 80 Marks)**

11. What are the Image Interpretation Techniques in describing various rock types? Give suitable example in each category of rock types.
12. a. Describe the different major Geophysical survey methods and their application in Mineral Exploration.

**(Or)**

- b. Describe in detail the importance of satellite and aerial data in resource mapping of earth Science giving suitable examples
- 13.a. Describe in detail the Groundwater Resources (Prospecting) Mapping using Satellite data with Methodology / flowchart and integration.

**(Or)**

- b. How Remote Sensing and GIS application help to plan the Seismic Survey programme for Oil Exploration

**(P.T.O)**

14.a Write a brief note on the Aeolian Landforms and their Photo characteristics.

(Or)

b. Explain briefly Landforms formed by Fluvial processes and add a note on their Photocharacteristics

15. a. Describe in detail the essential parameters for Petroleum Exploration in a Basin.

(Or)

b. Describe in detail the formation of Sedimentary rocks. Also indicate their classification, naming and lithification with examples