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**B.E./ B Tech ( Full Time) END SEMESTER EXAMINATIONS APRIL/ MAY 2011**

**GEO INFORMATICS ENGINEERING BRANCH  
SIXTH 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)**

39

1. Explain anticline and syncline folds and identification criteria using satellite data
2. Describe identification characteristics of metamorphic rock types.
3. Define flood plain and mapping of flood plain using satellite data.
4. Define Paleo channels and the criteria to recognize these features.
5. What are the identification characteristics of shale and sand stone in humid and arid climate.
6. Write a brief note on the Photo characteristics of granite and associated rocks.
7. Describe the characteristics of Reservoir rock for oil and gas accumulation
8. Describe different structural traps for oil and gas accumulation
9. How marine oil spills occur and how to locate the areas.
10. How the water is polluted in opencast mining activities.

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

11. Describe in details the Ground water resource (prospect) mapping using satellite LISS III type with methodology/ flow chart and integration.
12. a. How the Remote Sensing and GIS help to plan the seismic survey programme.

**(Or)**

b. Explain the basic drainage patterns indicating their significance with reference to Lithology, structure and groundwater occurrence.

- 13.a. Describe in detail the importance of satellite and aerial data in resource mapping of earth science giving examples

**(Or)**

b. Describe the different types of major Geo physical methods and their applications.

**(P.T.O)**

14.a Enumerate the different criteria for recognition of Faults using satellite / Aerial data.

(Or)

b. What are the image interpretation keys in discriminating the various rock types with suitable examples

15. a. Explain the various geomorphic processes and their significance in application of remote Sensing

(Or)

b. Describe briefly the salient features of Remote Sensing and GIS application in Oil and Natural Gas Exploration.