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

**CIVIL BRANCH
SEVENTH SEMESTER**

16

GI 508 – REMOTE SENSING AND GIS FOR EARTH SCIENCES

(Regulations – 2004)

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 Granites and associated rocks.
2. What are the identification characteristics of sandstone.
3. Distinguish between Horst and Graben.
4. Explain Laccolith and Dykes.
5. What is Drainage density?
6. Define the following landforms.
Meander Scar, Exfoliation dome.
7. Define Paleochannels and add a note on the photocharacteristics for mapping abandoned / paleochannels in Satellite imagery.
8. Distinguish between dip slip fault and strike –slip fault.
9. Explain pediment – inselberg complex.
10. Distinguish between Aquifer and Aquiclude.

PART – B (5 x 16 = 80)

11. a. Enumerate the different activities of Disaster Management. Add a note on the role of Remote Sensing & GIS in the management of disasters.
12. a. Explain Aeolian landforms and its photo – characteristics.
(or)
b. Write an account of the fluvial landforms. Add a note on the photocharacteristics of flood plains.

13. a. Enumerate the different criteria for recognition of faults / lineaments through Remote Sensing and in the field.

(or)

b. Explain the basic Drainage patterns with neat sketches and indicate their significance with reference to lithology and structure.

14. a. Enumerate the steps involved in planning Geophysical surveys for the evaluation and targetting ground water in hard rock areas.

(or)

b. Enumerate the basic principles of electromagnetic surveys and its applications.

15. a. Explain briefly the salient features of Remote Sensing and GIS applications in Mineral exploration.

(or)

b. Explain with a flowchart the steps involved in the preparation of groundwater prospect maps in the hard rock domains. Mention a few surficial features identified on the satellite image for evaluating the ground water conditions.