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B.E/BTech (FULL TIME) END SEMESTER EXAMINATION, APRIL/MAY 2013
GEO INFORMATICS BRANCH
FIFTH SEMESTER (REGULATION 2008)

GI-9029 REMOTE SENSING&GIS FOR EARTH SCIENCE

Time : 3.00 hrs

Max. Mark : 100

Instructions: Draw neat sketches wherever necessary

Answer all the Questions

Part – A

10x2=20 Marks

1. Explain the photocharacteristics of Sandstone and Shale
2. What are Exfoliation Domes?
3. Distinguish between Laccolith sill and Dyke
4. Explain briefly the structural hills and Residual hills
5. Define Paleochannels. Add a note on their photocharacteristics
6. What is the Drainage density. How is it useful to differentiate the Lithology?
7. Define Symmetrical and Asymmetrical folds
8. Distinguish between Horst and Graben structures
9. Distinguish between Aquifer and Aquitard
10. Write the formulae for calculating the apparent resistivity of a formation.

Part – B

5x16=80 Marks

11. Explain briefly the following fluvial Landforms and Add a note on their Photo characteristics
Flood Plain, Deltaic Plain, Alluvial Plain.
12. a) Describe briefly the image interpretation techniques and add a note on the photocharacteristics of following rock types,
Intrusive igneous rocks, Schist rock and Granitic gneiss.

(OR)

- b) Explain Dip-slip fault and Strike-slip fault. Add a note on the recognition of faults through Remote sensing.

13. a) Write a brief note on the different types of sand dunes and its photocharacteristics

(OR)

b) Describe with neat sketches the basic Drainage patterns and indicate their significance regarding Lithology and Structure.

14. a) Describe the essential parameters for Petroleum exploration in a basin

(OR)

b) Describe in detail with a flowchart the Ground Water prospects mapping using Remote Sensing and GIS.

15. a) Describe the different Geophysical survey methods and their application in Mineral Exploration.

(OR)

b) What are the different activities of Disaster management? Explain briefly the role of Remote sensing and GIS in the management of Landslides.