2008

M.Sc.

3rd Semester Examination

REMOTE SENSING AND GIS

PAPER—XII

Full Marks : 40

Time : 2 Hours

The figures in the right-hand margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

Illustrate the answers wherever necessary.

Answers each module in separate books.

[Option—IV]

Module—I (RG-2107)

(GeoInformatics in Earth Science)

Answer any *two* questions. 2×10

1. In remote sensing data how do you distinguish the following rock types : $4\times2\frac{1}{2}$

(a) Granite and sandstone.

(b) Granite gneiss and schist.

(c) Limestone and shale.

(d) Clay and phyllite.

2. (a) Identify the geological structural features visible from remote sensing images. 5

   (b) Explain with examples the interpretation elements for lithological mapping. 5

3. Explain the theory of Plate Tectonics in relation to earthquake and volcanic activities. 5+5

4. (a) Classify folds on the basis of outcrop exposure on the image data. 5

   (b) Explain the origin of transform and transcurrent faults with diagrams. 5

Module—II (RG-2108)

(GeoInformatics in Earth Science)

Answer any *two* questions. 2×10

5. Discuss briefly the significance of drainage patterns in geologic interpretation. 10

6. (a) What is natural event and how does it differ from natural hazards?

   (b) What are the factors mainly responsible for earthquake? Discuss them very briefly. 2+2+2+4

7. (a) How 'lineaments' and 'geomorphic anomalies' help in geohydrological studies of an area? 5

   (b) Explain with examples the interpretation elements for lithological mapping. 5

8. Discuss briefly 'GIS — The foundation for emergency management'. 10

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