Ph.D. GEOLOGY
(PHDGY)

Term-End Examination

June, 2022

RGYE-112 : GEOLOGICAL APPLICATIONS OF REMOTE SENSING AND GIS

Time : 3 hours   *Maximum Marks : 100*

Note : *Answer any five questions. All questions carry equal marks.*

1. Discuss in detail the role of remote sensing and GIS in petroleum exploration.   *20*

2. Explain the applications of geospatial technology in the study of geological structures.   *20*

3. What is GIS data model ? Distinguish between raster and vector data models on their advantages and disadvantages.   *20*

4. Discuss the recent trends in remote sensing and GIS for the study of fluvial landforms.   *20*

5. Describe the recent advances in remote sensing techniques for rocks and minerals related studies.   *20*

6. Discuss digital image enhancement techniques in detail.   *20*

7. Write short notes on any *two* of the
following : *2×10=20*

(a) Visual Image Interpretation

(b) Limitation of Remote Sensing in Geological
Studies

(c) Image Fusion

(d) Unsupervised Classification

8. Write short notes on any *two* of the
following : *2×10=20*

(a) Spectral Characteristics of Soil

(b) FOSS and COTS Data Analysis Tools

(c) DEM and its Uses

(d) Data Integration Techniques

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