

**Ph.D. GEOLOGY  
(PHDGY)**

**Term-End Examination**

**December, 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.

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1. What is data format ? Discuss in detail different types of data formats. 20
2. Discuss in detail the sources and types of geospatial data. 20
3. Give detailed account of types and components of GNSS. 20
4. Explain the role of Remote Sensing and GIS in groundwater exploration. 20
5. Give a detailed account of advances in image analysis and feature extraction. 20
6. Discuss in detail recent space programmes of India useful in geological research. 20

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

- (a) Applications of GNSS
- (b) DEM
- (c) Spatial Analysis
- (d) Ground Truthing

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

- (a) Recent trends in GIS
  - (b) Datums
  - (c) Coordinate system
  - (d) Hyperspectral remote sensing
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