

Ph. D. GEOLOGY (PhDGY)**Term-End Examination****December, 2019****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. Give a detailed account on the use of remote sensing and GIS in identifying potential ground water zones. 20
2. Discuss in detail engineering geological applications of remote sensing and GIS. 20
3. Describe the sources of geospatial data useful for geological research. 20

4. Write an essay on the importance of ground truthing in geological studies. Explain the process of planning ground truthing. 20
5. Discuss in detail applications of remote sensing in identifying various geological structures. 20
6. Write a detailed account on the recent Indian Space Programmes. 20
7. Write short notes on any *two* of the following : $2 \times 10 = 20$
- (a) Role of GNSS in geological studies
 - (b) Spatial analysis
 - (c) Application of remote sensing and GIS in landslide hazard zonation
 - (d) Utility of remote sensing in lithological mapping

[3]

8. Write short notes on any *two* of the following :

2 × 10 = 20

- (a) Application of remote sensing in geomorphological studies
- (b) Data analysis tools
- (c) Recent development in use of remote sensing and GIS for geological research
- (d) Feature extraction methods