

Sl. No. of Ques. Paper : 1344

F-7

Unique Paper Code : 2191503

Name of Paper : Remote Sensing & GIS

Name of Course : B.Sc. (Hons.) Geology (Former FYUP)

Semester : V

Duration : 3 hours

Maximum Marks : 75

(Write your Roll No. on the top immediately on receipt of this question paper.)

Attempt any five questions. All questions carry equal marks.

Draw labelled diagrams wherever necessary.

1. Explain in detail the energy interactions with earth surface features.
2. Write short notes on:
 - (i) Atmospheric influences on spectral response patterns
 - (ii) Atmospheric window.
3. Differentiate between the following:
 - (i) Spatial and attribute data in GIS framework
 - (ii) DEM data and Digital satellite data
 - (iii) Tone and texture of aerial photograph.
4. What are UTM coordinates? What is their significance in geological studies?
5. Explain in detail the concept of resolution and its importance.
6. What is GPS? What are the sources of error in GPS? Why is error more in elevation in comparison to spatial coordinates?
7. Explain in detail the elements of photograph interpretation.
8. Discuss the application of remote sensing in:

- (i) **Geomorphic mapping**
- (ii) **Structural mapping.**