

M.Sc. I Semester Degree Examination, April/May - 2023**APPLIED GEOLOGY****Geoinformatics****(CBCS)**

Time : 3 Hours

Maximum Marks : 70

Note : Answer **any five** of the following questions with Question No. **1 (Q1) Compulsory**, each question carries **equal** marks.

1. Answer the following : **14**
 - (a) Explain in detail of electromagnetic radiation and how this relationship is related to the energy carried by the radiation with neat sketch.
 - (b) Discuss the role of Indian Remote Sensing (IRS) satellites and provide examples of its applications in this field.
2. Describe the Sun synchronous satellites and geostationary satellites. Include at least two examples of each type of satellite, their functions and their orbits. **14**
3. Discuss the different types of remote sensing platforms and sensors and their applications in various fields. **14**
4. Answer the following : **14**
 - (a) Describe the different types of map projections used in GIS.
 - (b) Explain the spatial data and non-spatial data in GIS and provide examples of each.
5. Describe the different types of data sources used in GIS and explain how data quality can be assessed and improved. **14**
6. Answer the following : **14**
 - (a) What is GPS ? How it works ?
 - (b) Discuss the limitations of the GPS technology.
7. Describe the different types of data visualization techniques used in GIS and explain how they can be used to effectively spatial information communicate. **14**
8. Write a short note on : **14**
 - (a) Stages of Remote Sensing
 - (b) Raster and vector data models
 - (c) GIS and its components