Roll No:

The Assam Royal Global University, Guwahati
Royal School of Environment & Earth Sciences
M.A/M.Sc. Geography 2nd semester
Semester End Examination, July 2023
Course Title: Basics of Geoinformatics
Course Code: GEO164C203

Time: 3 Hours

Maximum Marks: 70

Note: Attempt all questions as per instructions given.
The figures in the right-hand margin indicate marks.

Section – A

1. Attempt **all questions**. (Maximum word limit 50)

    2 x 8

    a. Define geoinformatics.
    b. What is the meaning of Geoid?
    c. What are the two different types of sensors?
    d. Mention different types of platforms.
    e. What are fiducial marks and principal points in aerial photo?
    f. What is photo scale formula?
    g. What is GPS?
    h. What is the principles of DGPS?

Section – B

2. Attempt **any two** of the following:

    6 x 2

    a. Define the basic concept and scope of Geoinformatics .
    b. Discuss two difference between raster data and vector data and their merit and demerits.
    c. Describe different GIS software that are available in the market with their salient features.

3. Attempt **any two** of the following:

    7 x 2

    a. Describe the EMR properties of earth materials in the visible spectrum.
    b. Describe how Cartosat images are important for urban studies.
    c. Explain any three types of resolutions in remote sensing.

4. Attempt **any two** of the following:

    7 x 2

    a. Explain some of the Digital Image Processing Techniques.
    b. Discuss the major elements of visual image interpretation techniques.
    c. Explain the aerial photography and its scale with the help of a diagram.

5. Attempt **any two** of the following:

    7 x 2

    a. Explain the GPS constellation of the globe with a diagram.
    b. Discus what is IRNSS and its utility in navigation system.
    c. Explain the use of GPS in the field of Geographical studies.