7. Mention the sources of data in GIS.

8. What are the components of GIS?

GROUP—C

Answer *any* **one** question : 8×1=8

9. Discuss the different segments of GNSS for accurate and proper operation of the entire system with neat sketches. 8

10. Compare raster and vector data structure with suitable illustration. What are the limitations of GIS? 5+3

★★★

2024

M.Sc. 2nd Semester Examination

REMOTE SENSING & GIS

PAPER : RSG-204(CBCS)

(Fundamentals of Geospatial Technology)

Full Marks : 40

Time : 2 hours

Answer **all** questions.

The figures in the right-hand margin indicate marks.
Candidates are required to give their answers in their own words as far as practicable.
Illustrate the answers wherever necessary.

SECTION–A

PAPER : RSG-204.1

(Fundamentals of Remote Sensing and Photogrammetry)

GROUP—A

Answer any **two** questions : 2×2=4

1. Define the term 'pixel'.

2. What are the advantages of Along-track scanners?

3. Define the term 'Overlap' in Stereoscopic vision.

4. Define 'Photogrammetry'.

GROUP—B

Answer any **two** questions : 4×2=8

5. Describe the principles of remote sensing.

6. Write a short note on different platforms used in remote sensing.

7. Differentiate between whisk-broom and push-broom scanner.

8. Differentiate between maps and photographs.

GROUP—C

Answer any **one** question : 8×1=8

9. Describe the major distortions associated with photogrammetry and how they are handled in the mapping process. 4+4

10. What is Energy? How the energy is transferred? Which type of energy transferred, is important in remote sensing? 2+3+3

SECTION–B

PAPER : RSG-204.2

(Fundamentals of GIS & Navigational Satellite System)

GROUP—A

Answer any **two** questions : 2×2=4

1. What is the acronym for IRNSS?

2. What is meant by multipath error of GNSS signals?

3. Differentiate between spatial and non-spatial data.

4. How many GCPs are required for geometric correction using 1st order polynomial transformation?

GROUP—B

Answer any **two** questions : 4×2=8

5. Briefly discuss the major applications of GNSS.

6. Shortly explain the signal characteristics and operational concept of GNSS.