# A-632

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## **GIS-502/DGIS-502/CGIS-502**

# FUNDAMENTALS OF PHOTOGRAMMETRY AND REMOTE SENSING

(MAGIS/MSCGIS/DGIS/CGIS)

1st Semester Examination, 2024 (June)

Time: 2:00 Hrs. Max. Marks: 70

Note: This paper is of Seventy (70) marks divided into Two (02) Sections 'A' and 'B'. Attempt the questions contained in these Sections according to the detailed instructions given therein. Candidates should limit their answers to the questions on the given answer sheet. No additional (B) answer sheet will be issued.

#### Section-A

**Long Answer Type Questions**  $2 \times 19 = 38$ 

Note: Section 'A' contains Five (05) Long-answer type questions of Nineteen (19) marks each.

Learners are required to answer any two (02) questions only.

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- 1. Discuss the basic characteristics and sources of Electromagnetic Radiation (EMR). Present an account on the interaction of EMR with earth surface matter.
- 2. Describe the characteristics and application of the aerial photographs. Explain photographic products and specifications of aerial photography?
- 3. What is Relief Displacement? Explain the causes and characteristics of relief displacement.
- 4. What do you mean by the sensor resolution? Describe four relevant types of resolution in remote sensing and explain their characteristics.
- 5. Describe the passive and active instruments types of remote sensing? Present elaborate description on the image elements for remote sensing data interpretation?

### Section-B

## **Short Answer Type Questions** $4 \times 8 = 32$

- **Note:** Section 'B' contains Eight (08) Short-answer type questions of Eight (08) marks each. Learners are required to answer any *four* (04) questions only.
- Present a historical account on the development of photography, space science and remote sensing in India and abroad.

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- 2. Discuss the orbit characteristics of remote sensing satellite?
- 3. What are the various methods of aerial photography?

  Present the classification of aerial photographs?
- 4. What is parallax in the aerial photography? Explain X and Y parallaxes?
- 5. Write a short note on the geometry of aerial photograph?
- 6. Discuss the printed information or annotations on the aerial photographs?
- 7. Explain the impact of radiometric resolution on classification accuracy?
- 8. Describe the activities for ground truth collection and preparation of final interpretation key?

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