Total Pages : 3

Roll No.

GIS-505

Advance Remote Sensing

(MAGIS/MSCGIS/DGIS/CGIS)

2nd Semester Examination, 2023 (June)

Time : 2 Hours]

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 answer to the questions on the given answer sheet. No additional (B) answer sheet will be issued.

SECTION–A (Long Answer Type Questions)

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.

 $(2 \times 19 = 38)$

1. Describe the CARTOSAT-1 and 2 sensors and their image characteristics.

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- **2.** What do you understand by image rectification? Explain its techniques.
- **3.** What are the physical principles of thermal infrared remote sensing? Explain the blackbody principles?
- **4.** Write an essay on application of hyperspectral remote sensing in various fields.
- **5.** Describe spectral, spatial, temporal and radiometric resolution for hyperspectral sensors.

SECTION-B

(Short Answer Type Questions)

- **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. (4×8=32)
- 1. Differences between multispectral and hyperspectral remote sensing.
- **2.** Define atmospheric correction.
- **3.** Define Electromagnetic spectrum.
- 4. What do you understand by SLAR?
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- 5. How the image of a SAR system is formed?
- 6. What are the impacts of dielectric constants on radar returns?
- 7. What do you understand by spectral signature?
- **8.** Briefly explain the image transformation?