

A-0647

Total Pages : 3

Roll No.

GIS-505/DGIS-505

Advance Remote Sensing

(MAGIS/MSCGIS/DGIS/CGIS)

Examination 2026 (Feb.)

Time: 02:00 hrs

Max. Marks: 70

Note : This paper is of seventy (70) marks divided in to two (02) Section 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)

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.

(2x19=38)

P.T.O

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1. Discuss the major components and functions of Hyperspectral Remote Sensing system in detailed.
2. Discuss the components and advantages of a Side Looking Airborne Radar (SLAR) system in Remote Sensing.
3. Explain in detail the role of polarization (HH, HV, VV) in identifying different land cover types in SAR imagery.
4. Explain the concept of image restoration and noise models in detail.
5. Describe spatial domain and frequency domain filtering techniques with appropriate illustrations.

Section-“B”

(Short -answer - type questions)

Note:- Section ‘B’ contains eight (08) short-answer type questions of eight (8) marks each. Learners are required to answer any Four (04) questions only.

(4x8=32)

1. What is meant by a spectral signature.
2. What is the difference between active microwave systems?

3. How does polarization affect microwave backscatter?
4. Explain advantage of SAR and optical Remote Sensing systems.
5. Explain different applications of Digital Image.
6. What is the purpose of image enhancement in digital image processing?
7. Discuss training samples in supervised classification.
8. Define any two of the following:
 - a) Band Combinations
 - b) Geometric Distortion
 - c) Image Restoration and Noise
 - d) Discrete Cosine Transform (DCT)
