



**KERALA AGRICULTURAL UNIVERSITY**  
**B. Tech. (Agrl. Engg.) 2020 Admission**  
**VI Semester Final Examination – July 2023**

Lwre.3209

**Remote Sensing and GIS Applications (1+1)**

**Marks: 50**  
**Time: 2 hours**

**I Answer the following (10x1=10)**

1. Define Geographical Information System.
2. What is sensor in Remote Sensing?  
**State True or False**
3. In thermal remote sensing sensor basically received the emitted energy from the object.
4. No prior information is required for unsupervised image classification.
5. Microwave remote sensing may occur in both passive and active forms.
6. Spatial data does not have any location information.
7. GPS receiver received the radio signal from satellite.
8. Focal plane varies while aerial photography is carried out  
**Fill in the blanks**
9. Full form NDVI is .....
10. The service area of IRNSS is.....km. from Indian landmass

**II Write short notes on ANY FIVE of the following (5x2=10)**

1. What is Re-projection in GIS?
2. What is geo-database?
3. What do you mean by spectral signature?
4. What are the different types of platforms for remote sensors?
5. Write different types of resolution for satellite image.
6. How many GPS satellites are required to precisely measure the receiver location?
7. Write three types of aerial photographs based on camera axis.

**III Answer ANY FIVE of the following (5x4=20)**

1. Write a short note on Indian Regional Navigation Satellite System (IRNSS).
2. What is an atmospheric window in remote sensing?
3. Briefly describe different elements of interpretation keys for aerial photography.
4. Write a short note on unsupervised image classification technique.
5. What are the advantages of microwave remote sensing?
6. Note down two differences between raster and vector data structure.
7. What is whisk broom scanner?

**IV Write an essay on ANY ONE of the following (1x10=10)**

1. Discuss about signal characteristic and operational concept of Global Navigational Satellite System.
2. Briefly discuss the different components and advantages of Geographical Information

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