KERALA AGRICULTURAL UNIVERSITY
B.Tech.(Agrl. Engg.) 2018 Admission
VI Semester Final Examination- December 2021

Lwre. 3209   Remote Sensing and GIS Application (1+1)   Marks: 50
                                                                     Time: 2 hours

I   State True or False   **(10x1=10)**
1. Sensors which sense natural radiations, either transmitted or reflected from the earth are called passive sensors.
2. An azimuthal projection preserves equal area
3. Remote Sensing is a technique for getting information about a object by coming in contact with the object.
4. Diffuse reflectors are rough surfaces that reflect uniformly in all directions.
5. Blue sky is a manifestation of Mie scatter
   Define the following
6. Spectral resolution
7. Side lap
8. Photogrammetry
9. Atmospheric window
10. Attributes

II   Write short notes on ANY FIVE of the following   **(5x2=10)**
1. What is the operating principle of a long track multispectral scanners?
2. What is atmospheric scattering and Rayleigh scattering?
3. What are the hydrological applications of remote sensing?
4. Discuss the image enhancement technique.
5. Discuss the classification of map projections.
6. Discuss the components of GPS.
7. Which factors should be considered while selecting a sensor?

III   Answer ANY FIVE of the following   **(5x4=20)**
1. Differentiate between optical and microwave remote sensing.
2. Draw and discuss the typical spectral reflectance curves for dry bare soil, vegetation and water.
3. What are the advantages and disadvantages of vector data?
4. What are the basic components of ideal remote sensing system?
5. Differentiate between along track and across track scanning.
6. Define GIS. What are the different components of GIS?
7. Show the various regions of electromagnetic spectrum diagrammatically.

IV   Write an essay on ANY ONE of the following   **(1x10=10)**
1. Explain the electromagnetic spectrum and the processes involved in electromagnetic energy based Remote Sensing.
2. Discuss the elements of image interpretation.

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