

Answer ALL Questions

Part – A (10 x 2 = 20 Mark)

1. Draw neatly the spectral signature of vegetation canopy.
2. Differentiate hyperspectral from multispectral remote sensing.
3. Write the advantages of remote sensing for soil mapping.
4. What are the image elements that help to identify saline soil?
5. What are the necessities for land evaluation?
6. Write the disadvantage of water logging?
7. List the limitations of optical remote sensing for flood mapping.
8. What are the bands will be more useful to identify stressed crops?
9. Write the factors that lead to forest degradation.
10. What do you mean integrated survey?

Part – B (5 x 16 = 80 Mark)

11. i. Explain in detail about factors affecting the optical properties of leaves. (8)  
ii. Write notes on microwave remote sensing for crop inventory. (8)
  12. a. i. Explain the soil factors that influence the soil reflectance. (10)  
ii. Write the different types of soil survey methods with its purposes. (6)
- OR
- b. i. Explain the application of remote sensing and GIS for soil loss estimation with a case study. (16)
13. a. i. Explain the purpose of land evaluation and different methods of land evaluation for agriculture. (16)
- OR
- b. i. Discuss the role of RS & GIS in optimal land use planning for sustainable agriculture. (16)

14. a. i. Write the capabilities and contributions of remote sensing for drought management with the case study. (16)

OR

b. i. How the different types of crop stress is identified through remote sensing data. (16)

15. a. i. Explain how degradation of forest and encroachment into the forest area are assessed through temporal analysis of remote sensing data. (16)

OR

b. i. Discuss the methodology to estimate the timber volume of a forest by digital analysis of remote sensing data. (16)