

B.E / B.Tech (Full Time) DEGREE END SEMESTER EXAMINATIONS, Nov/DEC 2011
CIVIL ENGINEERING BRANCH
SIXTH SEMESTER - (REGULATION 2004)

GI 381 – DIGITAL IMAGE PROCESSING

TIME : 3HRS

MAX MARKS : 100

PART A (10 X 2 = 20)

1. Define radiometric resolution.
2. Illustrate IFOV and FOV.
3. List four sources of radiometric distortion in the remote sensing images.
4. What are pixel and line drop out?
5. Describe density slicing.
6. List two band ratios.
7. What are spectral signatures?
8. List four texture metrics.
9. How are scatterograms useful?
10. What is a neural network?

PART B (16 X 16 = 20)

11. i) Explain the three different supervised classification methods (12)
ii) What are false color composites and why are they generated? (4)
12. a. List four geometric and four radiometric preprocessing steps done in RS data.
(OR)
b. What are the advantages of image enhancements? Describe at least four enhancement techniques.
13. a. Explain PC analysis and application of it .
(OR)
b. i) What are the various unsupervised classification procedures used normally?
14. a. i) What is error matrix and how is it interpreted? List two other methods of accuracy assessment.
(OR)
b. Why are training sets important and how are they selected?
15. a. i) List four morphological operators and their uses.
(OR)
b. How do you distinguish the use of ES and Human expert in decision making situation?
Give examples