

Exam. Code : 208602

Subject Code: 8393

M.Sc. (Information Technology) Semester-II

IMAGE PROCESSING

Paper-MIT-203

Time Allowed—3 Hours]

[Maximum Marks—100

**Note** :— Attempt any **FIVE** questions out of **EIGHT**. All questions carry **20** marks each.

1. What are the various areas of Image Processing? Explain the design methodology for image processing.
2. Compare and analyze various algorithms for edge detection. What is the affect of different kind of noise on these algorithms?
3. What is the significance of neighboring pixels? What is the objective of Sampling and Quantization? How do these steps affect the quality of an image?
4. Write short notes on :
  - (a) Relation Description for Boundary
  - (b) Global Thresholding.

5. What are the various types of adaptive filters ? What is the difference between low pass filtering and high pass filtering techniques ?
6. What do you mean by Image Transformation ? Explain Walsh and Hadamard transformation in detail.
7. Discuss in detail the different scene matching and detection methods.
8. What are different Image Observation Models ? How the different filter methods effect these models ?