Exam. Code : 208602

Subject Code : 4669

M.Sc. Information Technology Semester—II

MIT–203 : IMAGE PROCESSING

Time Allowed—3 Hours]   [Maximum Marks—100

Note :– Attempt any **five** questions. Each question carries equal marks.

1. Explain the term Image Digitization. Discuss different technologies involved in Image Digitization. Also write the properties of a digital image.   20

2. What do you understand by Image Transformation ? Discuss Discrete Fourier Transformation in detail with suitable example.   20

3. What do you understand by Image Sharpening ? Discuss how High Pass Filtering and Differentiation technique help in sharping the image.   20

4. Define the following :

   (a) Image restoration

   (b) Image Encoding.   2×10

5. Explain the process of detection of discontinuation by point detection, line detection and edge detection with the help of an example.   20

6. Define the following :

   (a) Image Observation

   (b) Spatial Feature Extraction

   (c) Boundary Extraction

   (d) Image Understanding.   4×5

7. (a) What is Gray Level Interpolation ? Explain the schemes involved in it.   10

   (b) Explain the concept of Global Thresh – holding by citing an example.   10

8. Write short notes on :

   (a) Weiner Filtering

   (b) Least Square Error Filtering

   (c) Texture

   (d) Moment Representation.   4×5