

5. (a) What are the different types of filters used for noise reduction ? Explain any one.
(b) Explain the concept of Huffman Coding for Image Data Compression.
6. (a) What are the different techniques used for Image Enhancement ? Explain any one in detail.
(b) Explain the concept of Statistical Pattern Recognition using suitable example.
7. (a) Explain the concept of Color Spectrum. Draw chromaticity diagram to understand the range of colors.
(b) Explain RGB color model.
8. (a) Discuss about color complement and color slicing.
(b) Explain the procedure of converting colors from HSI to RGB and RGB to HSI color formats.

Exam. Code : 206702
Subject Code: 4801

M.Sc. Computer Science 2nd Semester
IMAGE PROCESSING
Paper : MCS-202

Time Allowed—2 Hours] [Maximum Marks—100

Note :— There are **Eight** questions of equal marks. Candidates are required to attempt any **Four** questions.

1. (a) Explain the term Image Processing. Discuss the fundamental steps involved in Image Processing.
(b) What are the components of Digital Image Processing ? Discuss in detail.
2. (a) What do you understand by Computer Image Processing and recognition of pictorial data ? Explain any one technique used for this purpose.
(b) Explain the use of digital image processing in different applications. Discuss any one in detail.
3. (a) Explain different elements of Visual Perception.
(b) What are the different types of sensors used for Image Sensing and Acquisition ?
4. (a) How Digital Images are represented ? Explain the basic relationships between the pixels.
(b) Explain different data formats used to store Images.