

Total No. of Questions : 8]

[Total No. of Printed Pages : 2

Roll No

MCADD-804 (3)

M.C.A. (Integrated), VIII Semester

Examination, November 2023

Digital Image Processing

(Elective - III)

Time : Three Hours

Maximum Marks : 70

- Note:** i) Attempt any five questions.
ii) All questions carry equal marks.

1. a) Explain the different types of images in detail with help of neat sketches and equation. 7
b) Explain the steps involved in sampling and Quantization of images. 7
2. a) What are the elements of visual perception? 7
b) Explain image sensing and Acquisition. 7
3. a) What is Inverse filtering? 7
b) Explain the concept of median filtering and discuss its properties and limitations. 7
4. a) Explain any four basic relationship between pixels. 7
b) How wiener filter is helpful to reduce the mean square error? Explain with suitable example. 7
5. a) Explain how the image is degraded an with help of degradation model explain the restoration process of image. 7
b) Why is image enhancement different from image restoration? What is color interpolation? 7

[2]

6. a) How the color image is formed? Describe RUB model.
What is Pseudo color image processing? 7
- b) Write down the advantages of filters in frequency domain. 7
7. a) Determine the frequency characteristics of low pass, high pass and Homomorphic filtering in frequency domain. 7
- b) Explain opening and closing operation on images by using suitable example. 7
8. Write short notes : 14
- i) Dilation
 - ii) Edge detection
 - iii) Image segmentation
 - iv) Histogram processing
