



## Term Evaluation (Odd) Semester Examination September 2025

Roll no.....

Name of the Course: B.Tech

Semester: VII

Name of the Paper: Digital Image Processing

Paper Code: TEC 705

Time: 1.5 hour

Maximum Marks: 50

**Note:**

- (i) Answer all the questions by choosing any one of the sub-questions
- (ii) Each question carries 10 marks.

**Q1.** CO1/ CO2 (10 Marks)

a. What are the main challenges in image enhancement?

**OR**

b. What are some real-world applications of image enhancement?

**Q2.** CO1 (10 Marks)

a. What are the initial digital image processing stages? Describe in detail.

**OR**

b. What is image sampling and quantization?

**Q3.** CO1 (10 Marks)

a. Define Neighborhoods, Adjacency and Distances in digital image.

**OR**

b. What are the metrics used to quantify the separation between pixels in digital image?

**Q4.** CO2 (10 Marks)

a. What are the main categories of image enhancement techniques?

**OR**

b. What are different types of digital image noise?

**Q5.** CO2 (10 Marks)

a. Explain the concept of histogram equalization and how it improves image contrast?

**OR**

b. What are the key differences and application of sharpening spatial filters and smoothing spatial filters in digital image enhancement?