



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?