

**CSE463**  
**Assessment 1**  
**1st March 2025**  
**Spring 2025**  
**Time: 30 mins**

## **Question 1**

Given an input grayscale image, apply a Gaussian filter with a kernel size of 5x5, followed by Laplacian edge detection. Display the original image, the Gaussian blurred image, and the Laplacian result side by side.

Instructions:

1. Read the input image in grayscale.
2. Apply a Gaussian blur with a 5x5 kernel.
3. Apply the Laplacian filter to detect edges.
4. Display all three images (original, blurred, and edge-detected) in a single window using matplotlib.

## **Question 2**

Q2. If you apply a 2x2 max pooling with a stride of 2 to a 4x4 image, what will be the size of the output?

**Submission Link:** <https://forms.gle/2LXqJ7ahkjp5SMyx9>