MTCS-104
Digital Image Processing
Practice Test

1. Given *f,* a 2D grayscale image and *h* an ideal low-pass filter with D0 = 15, verify the relation *F(h*f)* = *F(h).F(f),* where F is the Fourier transform, * denotes the convolution operation and . denotes the multiplication in the frequency domain.
   The output should be 4 images:
   a. The original input image
   b. Filtered Image obtained using spatial filtering
   c. Filtered Image obtained using frequency domain filtering
   d. Difference of the images obtained in b. and c.

2. Demonstrate the filtering processing in frequency domain for the forward-difference and the central-difference filters.
   The output should be 2 images:
   e. The original input image
   f. Filtered Image

OR

3. Demonstrate the filtering process using a notch filter.
   The output should be 2 images:
   g. The original input image
   h. Filtered Image

Submission time: 11:30 AM
