

- a) Because padding with zeros will result in the significant discontinuities at the boundary of the image, where the image ends abruptly and continues with zero values, causing the significant increase in signal strength along the vertical and horizontal axes in Fig.(d).
- b) Since padding with lots of zero values will lower the average gray level of the image, adding weight to the low frequency component, thus, there exists a significant increase in signal strength in the low frequency region of Fig.(d).