Ain Shams University
Faculty of Engineering
CSE 681-617 Digital Image Processing

Assignment 2 (Due on Nov. 30)

The problems are from Gonzalez & Woods version 3 (2008).

Conceptual Questions:

1. Problem 4.27
2. Problem 4.28
3. Problem 4.33
4. Problem 5.10
5. Problem 5.13
6. Problem 5.24

Programming Question:

1. Download Fig. 4.41(a) from the book web site.
   Implement the Gaussian lowpass filter. You must be able to specify the size, *M* x *N*, of the resulting 2D function. In addition, you must be able to specify the location of the center of the Gaussian function.

2. Download Fig. 5.7(a) from the book web site and add salt-and-pepper noise to it, with Pa = Pb = 0.2. Apply median filtering to the image. Explain any major differences between your result and Fig. 5.10(b).