

**Electrical Engineering Department**  
**EE 410 Digital Image Processing (072)**  
**Instructor: Dr. Omar A. Al-Swailem**  
**Quiz #3**



Name:	ID#	Date: Sunday March 23 <sup>rd</sup> , 2008
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Q1: Show the effects on the image below of:

- (a) Applying a 3×3 smoothing filter
- (b) Applying a 3×3 median filter
- (c) Applying a 3×3 smoothing filter followed by the median filter
- (d) Applying a 3×3 median filter followed by the smoothing filter

Explain and comment on your answers?

Note: Assume for the borders that the rest of the picture extends in all direction with the value of 1.

(Image)

1	1	1	1	1
1	1	1	1	1
1	1	55	1	1
1	1	1	1	1
1	1	1	1	1

(a)


(b)


(c)


(d)
