Noisy barbara ( $\sigma$  = 5)

Filtered barbara ( $\sigma_s$ : 2.00,  $\sigma_r$ : 2.00)



Filtered barbara ( $\sigma_{\rm s}$ : 0.10,  $\sigma_{\rm r}$ : 0.10)



Filtered barbara ( $\sigma_{\rm s}$ : 3.00,  $\sigma_{\rm r}$ : 15.00)



Noisy barbara ( $\sigma$  = 10)



Filtered barbara ( $\sigma_{\rm s}$ : 2.00,  $\sigma_{\rm r}$ : 2.00)



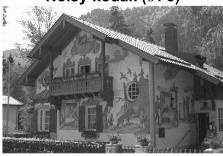
Filtered barbara ( $\sigma_{\rm s}$ : 0.10,  $\sigma_{\rm r}$ : 0.10)



Filtered barbara ( $\sigma_{\rm s}$ : 3.00,  $\sigma_{\rm r}$ : 15.00)



Noisy kodak ( $\sigma$ : 5)



Filtered kodak ( $\sigma_{\rm s}$ : 2.00,  $\sigma_{\rm r}$ : 2.00)



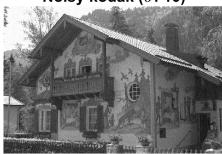
Filtered kodak ( $\sigma_{\rm s}$ : 0.10,  $\sigma_{\rm r}$ : 0.10)



Filtered kodak ( $\sigma_{\rm s}$ : 3.00,  $\sigma_{\rm r}$ : 15.00)



Noisy kodak ( $\sigma$ : 10)



Filtered kodak ( $\sigma_{\rm s}$ : 2.00,  $\sigma_{\rm r}$ : 2.00)



Filtered kodak ( $\sigma_{\rm s}$ : 0.10,  $\sigma_{\rm r}$ : 0.10)



Filtered kodak ( $\sigma_{\rm s}$ : 3.00,  $\sigma_{\rm r}$ : 15.00)



## Results:

- 1. Edges are preserved in all the resulting images
- 2. As the spatial parameter  $\sigma s$  increases, the larger features get smoothened.
- 3. As the radial parameter σd increases, the intensity at a point becomes almost equal to the net intensity of the image.
- 4. Pictures appear more cartoony with high sigma value