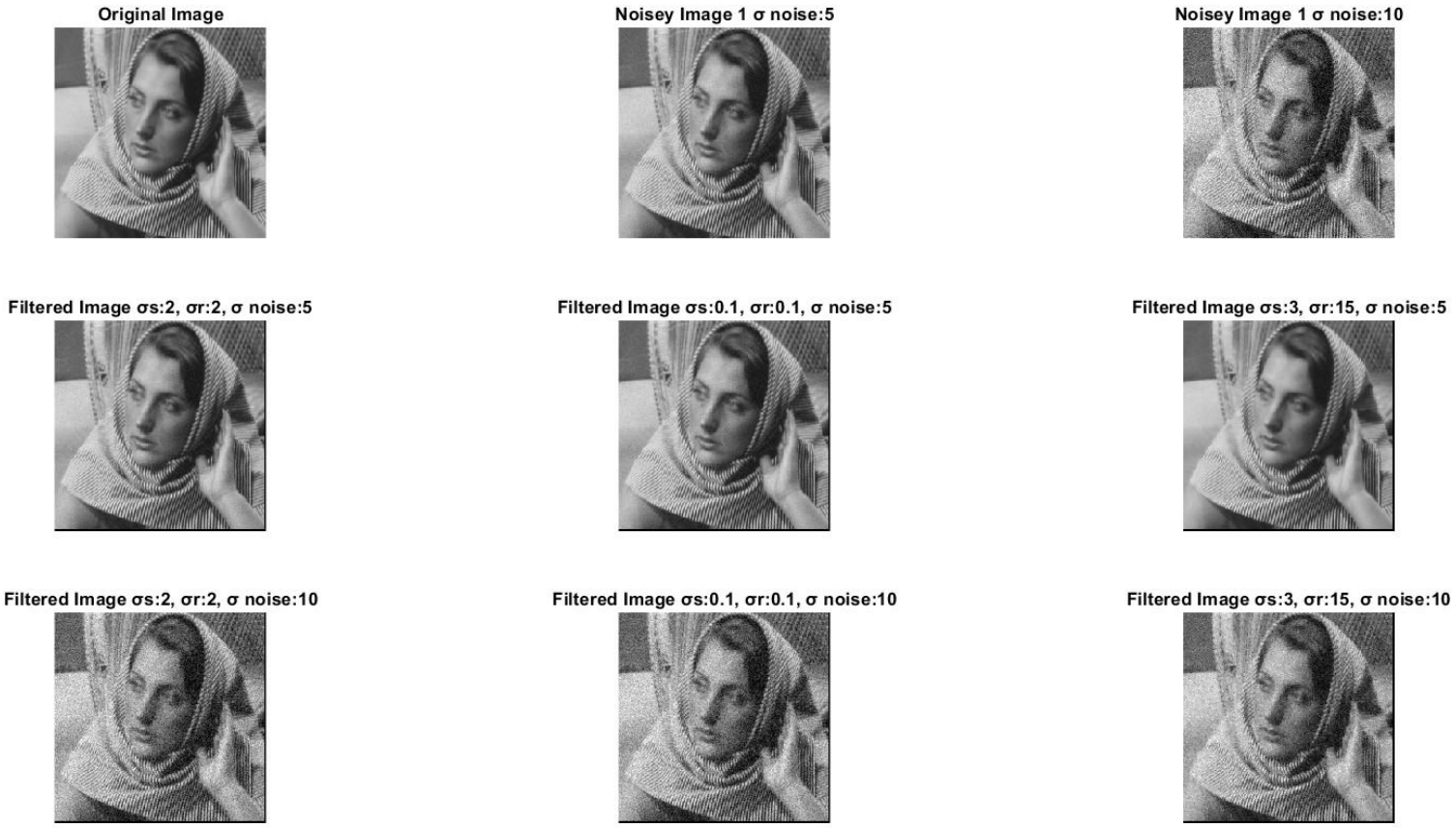
Question 8

a. In first case when σ = 5 it have been observed that in 2nd image it is hard to see the effects of the filtering but in 1st image we can clearly see the as both σ_s, σ_r increases the smoothing of image start take place leading to removal of noisy pixels but the image get blurry and details of image has been lost.

b. In second case when σ = 5 it have been observed that the is not much noise removal or smoothening of image by bilateral filter as compare the first case.

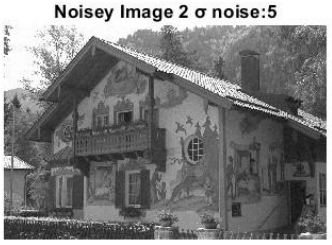
c. Fig 1 (Bilateral filtering on image - barbara256.png)



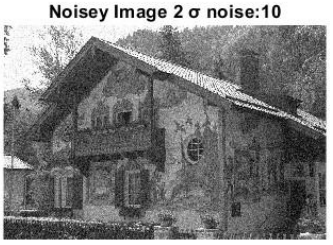
d. Fig 2 (Bilateral filtering on image - kodak24.png)

Original Image

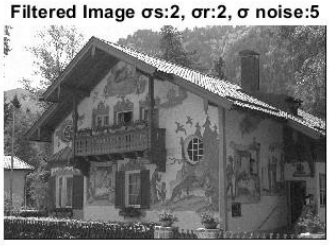
Noisey Image 2 σ noise:5



Noisey Image 2 σ noise:10



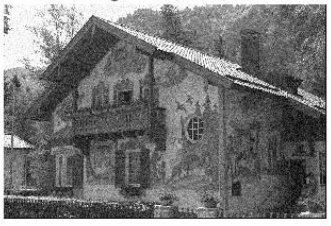
Filtered Image σs:2, σr:2, σ noise:5



Filtered Image σs:0.1, σr:0.1, σ noise:5

Filtered Image σs:3, σr:15, σ noise:5

Filtered Image σs:2, σr:2, σ noise:10



Filtered Image σs:0.1, σr:0.1, σ noise:10

Filtered Image σs:3, σr:15, σ noise:10