Question 4)a) continue, Why does Scipy have separate functions
'signal.convolve2d' and 'signal.correlate2d'?

1)convolution is linear operations on the signal or signal modifier
2)correlation is a measure of similarity between two signals.

the basic difference between convolution and correlation is
that the convolution process rotates the matrix by 180 degrees.
Most of the time the choice of using the convolution and correlation is
up to the preference of the users,
and it is identical when the kernel is symmetrical.

As I mentioned above, in the case that the kernel is
asymmetrical we get different resualts,
and also they usully have a different ussage.
so Scipy as a professional library should define two different
functions for these two different methods.

Question 5

it is best to take advantage of the Gaussian filter's separable property
by dividing the process into two passes.
In the first pass, a one-dimensional kernel is used
to blur the image in only the horizontal or vertical direction.
In the second pass, the same one-dimensional kernel
is used to blur in the remaining direction.
The resulting effect is the same as convolving
with a two-dimensional kernel in a single pass,
but requires fewer calculations.
complexity of filtering an n×n image with an m×m kernel is $O(n^2.m^2)$
while for separabale kernel is $O(n.m^2)$.