Sharpening

Filter>Sharpen>Unsharp Mask is the only sharpening filter you will ever need.
Turn off any sharpening in the scanner software and **always apply sharpening at the end of an editing session.**

Unsharp masking introduces artifacts into the image that degrade the picture. If you over-sharpen an image before carrying out colour adjustments and other retouching, the artifacts will be more noticeable. Always sharpen a copy of the final version, so you can apply additional corrections to an unsharpened copy later.

Amount of Sharpening
The Amount Setting controls the level or intensity of unsharp masking.
Usually you will need between 60% and 150%. Try setting the amount value really high. Experiment to find which Radius and Threshold settings work best at this high Amount setting, and then reduce the percentage level.

Radius
The Radius and Threshold settings affect the distribution of the sharpening effect.
The Radius setting controls the width of the sharpening effect. The recommended setting is between 1 and 2. Increasing the Radius beyond 2 will emphasize the edges in an image.

Threshold
This setting controls which pixels will be sharpened based on how much the pixels to be sharpened deviate in brightness from their neighbours.

Higher Threshold settings apply the filter only to neighbouring pixels which are markedly different in tonal brightness, such as edge outlines. At lower settings more or all pixels are sharpened including areas of smooth continuous tone. The higher the threshold, the more information Photoshop leaves alone and doesn't sharpen.

At lower setting areas of smooth continuous tone are sharpened. Raising the Threshold setting will enable you to sharpen edge contrast, without sharpening scanner noise or film grain (good for 35mm film). Try a setting around 10 as a starting point.

Selective Sharpening
Create a sharpened image state in Photoshop
Undo the sharpening in the History palette
Select the sharpened image state as the history source.
Use the history brush to selectively paint in the unsharp masking.

Sharpening Selected Channels
The blue channel in an RGB image contains the most noise, so it is a good idea to sharpen the red and green channels only.
Activate the Channels palette
Click on the Red Channel and Shift-click on the Green Channel.
Click on the eyeball icon next to the composite colour channel to preview the photograph as a full-colour image.

Sharpen
Click OK and then click on the composite channel in the channels palette to edit all channels.

Progressive Sharpening
Applying the unsharp mask filter in steps will result in smoother sharpening. For example, instead of applying an amount of 300% in a single pass, apply the filter set at 100% in three passes, while keeping the Radius and Threshold values the same.

Sharpening for the screen:
Bump the amount as high as it will go.
For on-screen sharpening, the radius needs to be low (0.3 - 0.5). For printing, radius will usually fall between 1.0 and 1.3.
Bring the Threshold down until it looks sharp without overly affecting the film grain. A range between 0 and 7 is typical.
Now adjust the amount so that the image looks sharp.

Sharpening for printing:
Follow the directions above, but look at the image on screen at the actual size it will be printed. To do this, zoom in until one inch of the ruler on the screen looks like one inch in real life.
View the monitor at the distance you would view the finished print at. Viewing distance is important.

Creative Sharpening:
First use a very high amount **and** radius, so it is the size of blurry or bland objects (such as the faces in a large crowd). Then reduce the amount so that the result is pleasing. The threshold will be near zero.
This technique works well for flat, boring images, as it increases contrast and sharpness only where it is needed.