A5) Pixalize filter of gimp

This can be done by a non linear filter by dividing the image into a grid of (k * k) filters(image us broken down into (n*n)/ (k*k) grid, n*n is dimension of image and k *k is dimension of filter) and for each block of grid choose the centre element for the color and when the filter is being slid on the image, whichever centre is present inside filter, put the corresponding value for that cell in filter to 1 and others to 0. So only one cell of the filter will be 1 and all others will be 0 at any convolution step. This will work for filters with odd dimension but for filters with even dimension the color which is closer to the centre of the matrix can be chosen as the final color.