% Compiled and Created By : Vikas Choudhary

% Expt Title : spatial Domain Median Filtering

% B.E ENTC

clc;

clear all;

close all;

a=imread('cameraman.tif');

a=imnoise(a,'salt & pepper');

[r c]=size(a);

h=a;

for i=2:1:r-1

for j=2:1:c-1

d=[a(i-1,j-1) a(i-1,j) a(i-1,j+1) a(i,j-1) a(i,j) a(i,j+1) a(i+1,j-1) a(i+1,j) a(i+1,j+1)];

e=sort(d);

h(i,j)=e(5);

end

end

subplot(1,2,1)

imshow(a);

title('Salt n pepper Image');

subplot(1,2,2)

imshow(uint8(h));

title('Median Filtered Image');