**Experiment 5: Perform perform the Linear filtering using convolution in an image**

**AIM:**

To Perform the Linear filtering using convolution in an image.

**SOURCE CODE:**

S = imread(‘balloons\_noise.png’);

imshow(S);

h = 1/25.\*ones(5,5);

S2 = imfilter(S,h);

imshow(S2);

S = imread(‘text.png’);

imshow(S);

S2 = imcomplement(S);

imshow(S2);

h = imread(‘a.png’);

h2 = imcomplement(h);

imshow(h2);

S3 = im2double(S2);

h3 = im2double(h2);

S4 = imfilter(S3,h3);

S5 = imnorm(S4);

imshow(S5);

a\_loc = S5 > 0.9;

[rows, cols] = find(a\_loc);

imshow(S);

sz = size(S);

plot(cols,sz(1)-rows,’r.’);

**OUTPUT:**

**RESULT:**

We have successfully performed the Linear filtering using convolution in an image.