ICBV – HW2

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Question 1 – Edge Detection

Section A

Given

And the following Edge Detectors:

= edge dector based on the local maximum of

= Edge detector based on finding the ZC of the Laplacian

Compute analytically the edge points detected by each of the edge detectors:

For E1:

Eval :

Now we want to find the extremum points, we got an expression that depends only on y, so we can ignore x, in further computations:

So our maximum values are for

Now lets evaluate the second derivative, at the point we found: