| CSE 4733 **Digital Image Processing** | **Quiz #03** | Date: |
|---|---|---|
| Time: 20 Minutes | Marks: 15 | **ID:** |

**Questions:**

1. What would happen in binary dilation if the structuring element is a single point, i.e., a single position valued 1? Will be output be same for Erosion too?   5 [CO2, PO2]

2. Let A denote the only binary object as shown in Figure 1. Discuss what would you expect as output in each of the following cases:   5+5 [CO1, PO1]
   i.   The starting point of the *hole filling* algorithm is a point on the boundary pixel of the object.
   ii.  After applying the dilation operation with circular structuring element. Roughly draw the output on top of input, and explain which and why corners will be round.
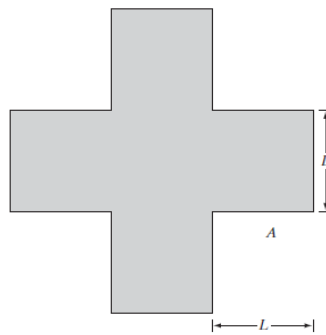


Figure 1.