

**Solution - Quiz#3**  
**BESE 14**  
**Digital Image Processing**

Given the image I :

0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	1	1	1	1	0	0
0	0	1	1	1	1	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0

And structuring element S

1	1	1
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Compute the following :

a.  $I \odot S$

0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	1	1	0	0	0
0	0	0	1	1	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0

b.  $I^c \oplus S$

1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1
1	1	0	0	0	0	1	1
1	1	0	0	0	0	1	1
1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1

$I^c$

1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1
1	1	1	0	0	1	1	1
1	1	1	0	0	1	1	1
1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1

$I^c \oplus S$

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