Image J

Structuring Element S

Select one:

- a. 1
- b. Undefined
- c. None of the others
- d. 0 ✗
- e. 2

Question 4

Correct

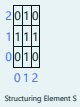
Mark 1.00 out of 1.00

Consider the 4x4 **binary image**, J, defined by the grid lattice below. Given also, is the **cross-like** 3x3 structuring element,S, which contains "1"-value pixels except at the corners and has the **origin at the center** (1,1). The horizontal is x axis and the vertical is y axis. Each pixel location is denoted as (x,y) of position index.

Do not process all pixels that are within a **1pixel border** around the image.

What is the resulting value at pixel location (1, 2) of the image obtained after performing a **binary erosion** of image J with structuring element S?

Image J



Structuring Element S

Select one:

- a. None of the others
- b. 1
- c. 2
- d. Undefined
- e. 0 ✓

Question 5

Correct

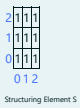
Mark 1.00 out of 1.00

Consider the 4x4 **binary image**, J, defined by the grid lattice below. Given also, is the **square-like** 3x3 structuring element,S, which contains all "1"-value pixels and has the **origin at the center** (1,1). The horizontal is x axis and the vertical is y axis. Each pixel location is denoted as (x,y) of position index.

Use **"Padding 1"** (Extending border values outside with the boundary values).

What is the resulting value at pixel location (3, 1) of the image obtained after performing a **binary dilation** of image J with structuring element S?

Image J



Structuring Element S

Select one:

- a. None of the others
- b. 1 ✓
- c. 2
- d. Undefined
- e. 0

Question 6

Correct

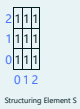
Mark 1.00 out of 1.00

Consider the 4x4 **binary image**, J, defined by the grid lattice below. Given also, is the **square-like** 3x3 structuring element,S, which contains all "1"-value pixels and has the **origin at the center** (1,1). The horizontal is x axis and the vertical is y axis. Each pixel location is denoted as (x,y) of position index.

Use **"Padding 1"** (Extending border values outside with the boundary values).

What is the resulting value at pixel location (0, 3) of the image obtained after performing a **binary dilation** of image J with structuring element S?

Image J



Structuring Element S

Select one:

- a. Undefined
- b. 2
- c. 1 ✓
- d. None of the others
- e. 0

Question 7

Correct

Mark 1.00 out of 1.00

Consider the 5x5 **binary image**, J, defined by the grid lattice below. Given also, is the **square-like** 3x3 structuring element,S, which contains all "1"-value pixels and has the **origin at the center** (1,1). The horizontal is x axis and the vertical is y axis. Each pixel location is denoted as (x,y) of position index.

Use **"Padding 1"** (Extending border values outside with the boundary values).

What is the resulting value at pixel location (2, 1) of the image obtained after performing a **internal gradient** of image J with structuring element S?

Image J

Structuring Element S

Select one:

- a. 1
- b. 2