

## DSIP Assignment

AMEY THAKUR

BE COMPS B-50

Q. Draw point line and edge detection masks prewitt sobel.

Sol<sup>n</sup>:

Point Detection  $\Rightarrow$

-1	-1	-1
-1	8	-1
-1	-1	-1

Line Detection

$\Rightarrow$

-1	-1	-1	-1	-1	2
2	2	2	-1	2	-1
-1	-1	-1	2	-1	-1

Horizontal)

+45°

-1	2	-1	2	-1	-1
-1	2	-1	-1	2	-1
-1	2	-1	-1	-1	2

Vertical)

-45°

Amey

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### Edge Detection

(Sobel)

$$M_x = \begin{bmatrix} -1 & 0 & 1 \\ -2 & 0 & 2 \\ -1 & 0 & 1 \end{bmatrix}$$

$$M_y = \begin{bmatrix} -1 & -2 & -1 \\ 0 & 0 & 0 \\ 1 & 2 & 1 \end{bmatrix}$$

(Prewitt)

$$M_x = \begin{bmatrix} -1 & 0 & 1 \\ -1 & 0 & 1 \\ -1 & 0 & 1 \end{bmatrix}$$

$$M_y = \begin{bmatrix} -1 & -1 & 1 \\ 0 & 0 & 0 \\ 1 & 1 & 1 \end{bmatrix}$$

AMEY